

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

aTC424
.C2U5

U.S. Soil Conservation Service
2020 Milvia Street
Berkeley, California

WATERSHED PHASE
OF THE 1968
SOIL AND WATER
CONSERVATION
NEEDS
INVENTORY

U.S. DEPT.
AG.

JUL 29 1971

CATALOGING - PREP.



CALIFORNIA

**AUGUST
1969**

✓
UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

AD-33 Bookplate
(1-68)

NATIONAL

**A
G
R
I
C
U
L
T
U
R
A
L**



LIBRARY

INDEX

INTRODUCTION	2
SACRAMENTO BASIN	5
NORTH LAHONTAN	20
NORTH COAST	24
SAN FRANCISCO BAY	29
DELTA-CENTRAL SIERRA	34
SAN JOAQUIN BASIN	38
TULARE BASIN	45
SOUTH LAHONTAN	50
CENTRAL COASTAL	53
SOUTH COASTAL	58
COLORADO DESERT	67

CONSERVATION NEEDS INVENTORY WATERSHED PHASE

INTRODUCTION

In June 1963, a "Watershed Supplement to the California Soil and Water Conservation Needs Inventory" was published which indicated approximately 350 watersheds in need of project action.

These projects had watershed problems related to flood prevention and agricultural water management, i.e. irrigation and drainage, that lent themselves to solution through the P.L. 566 program. These 350 watersheds were analyzed by (1) identifying the nature of the problems, (2) appraising the engineering and economic feasibility, and (3) making a judgment determination of the readiness of the local people to proceed with such a project.

The 1968 inventory of potential P.L. 566 watersheds, as presented, has attempted to further analyze the areal extent, nature and magnitude of the watershed problems as well as make general estimates of costs and benefits. These watersheds were evaluated by the local SCS staffs along with the County, and State Conservation Needs committees to establish the nature and magnitude of the problems and the readiness of the local people to fulfill the obligations and responsibilities in building the projects under P.L. 566.

In this report, more exacting criteria were used for appraising adaptability to P.L. 566, local interest, and economic and engineering feasibility. The inventory was limited to those watersheds it was estimated would proceed with construction within 10 - 15 years.

CRITERIA

Existing P.L. 566 criteria were used as the guideline for estimating design levels and determining cost sharing. The annual costs were computed using the prevailing interest rate of $4\frac{5}{8}\%$. In general, the estimated costs for flood control measures were based on 1% chance protection on urban land and 10% chance protection for agricultural areas. These are the minimum levels of protection considered. It is realized a different design level might maximize net benefits. However, alternative structural programs were not considered at this time. Use caution when applying the tabulated cost estimates. They are shown to display the approximate magnitude of cost for each project. These costs are not absolute and should not be used in that light. Each cost represents only the approximate cost of installing one possible structural and land treatment program to solve their watershed problems. The estimated structural program was the one considered to best utilize the existing resources of the watershed.

The tabulated storage for each purpose was determined by available water supply and watershed need. Legal restraints such as present water rights were not considered. To accurately assess the "actual" limitations due to water rights and compacts would require a detailed legal search and opinion. Since such a legal search and the "local opinion" are seldom in agreement, it was decided that legal requirements should not dictate the need for appraisal of economic and engineering feasibility. Going programs of conservation land treatment were used as an indicator of local readiness. The watersheds listed in this report as "probably not

feasible" represent areas where the criteria used indicates a project is either not economically justified or P.L. 566 requirements cannot be met. However, some features of the project might be feasible even though the over-all project is not considered feasible under existing policy. Changes in P.L. 566 requirements and design criteria might enable some of these watersheds to be future projects. Those listed as "questionable" feasibility deserve further study as alternative structural programs and a more detailed analysis may show many of them to be feasible projects.

PROCEDURES

The watershed problems were outlined by the local SCS people and the County Conservation Needs Committee to establish the nature and magnitude of the problems. The reported projects were then considered by the State Conservation Needs Committee along with the California SCS River Basin Staff to verify the reported project needs and opportunities. A brief field examination was made on most watersheds by members of the SCS River Basin Staff to gather, tabulate, and verify watershed data. The 231 watersheds as tabulated in this report were analyzed by brief field studies and examining available topographic maps, aerial photos, etc., to visualize a structural program that would solve the watershed problems. An estimate of costs and project benefits was made. The estimating procedures were developed by experienced Service planning personnel. The data was tabulated and summarized for various areas in California and the appropriate relationships were used for estimating feasibility on the potential P.L. 566 projects. In computing benefits, areas were included where changed land use will produce significant enhancement benefits. These enhancement benefits were included in the total project benefits.

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

SACRAMENTO BASIN SUBREGION

WATERSHED NAME & NO.		PROBLEMS									P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain Ac.	Irrig Ac.	Drain- age Ac.	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams No.	Sedi- ment Stor. Ac-Ft	Flood Stor. Ac-Ft	Control Channel Miles	Irrigation		Drain- age Mains Ac.	M&I Storage Ac-Ft	Rec. Storage Ac-Ft	F&W Storage Ac-Ft	PL 566 Cost (\$1,000)	Local Cost (\$1,000)	Total Cost (\$1,000)	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Yes	No	Yes	No	Yes	No					Stor.	Canals Miles										
Goose Lake ^{2/}	4-3	2,600	7,000	200		x	x		x		3	-	-	-	28,000	-	-	-	-	-	650	470	1,120			x
Spring & Salt Cr.	5-1a	1,000	10,000	15,000		x	x		x		3	195	2,125	3.0	8,620	-	-	-	-	-	1,280	711	1,990			x
Coon Creek ^{2/}	5-2	30,729	6,500	-		x	x		x		3	335	11,165	-	18,400	-	-	-	-	4,550	3,810	2,865	6,670			x
Petroleum Cr	5-21	1,500	14,000	3,000	^{1/}	x	x		x		3	132	1,300	-	3,670	-	-	-	-	-	810	453	1,260			x
Salt & Elk Cr	5-22	1,200	12,000	12,000		x	x		x		2	100	1,100	2.5	3,300	-	-	-	-	-	1,400	707	2,110		x	
Munson Basin ^{2/}	5-23	-	2,500	4,500		x		x		x	-	-	-	-	-	-	5,200	-	-	-	192	142	334			x
Sand Cr	5-24	3,500	8,000	5,000		x	x		x		1	100	1,000	3.0	3,600	-	-	-	-	-	748	408	1,160			x
Cortina Cr	5-25	10,000	10,000	18,000		x	x		x		1	300	2,500	3.5	9,500	-	-	-	-	-	1,570	838	2,410			x
Freshwater Cr	5-26	400	2,000	2,500		x	x		x		1	250	2,000	6.5	8,700	-	-	-	-	-	2,410	1,230	3,643			x
Hopkins Slough ^{2/}	5-27	-	1,650	1,650		x		x		x	-	-	-	-	-	-	14,000	-	-	-	245	250	495		x	
Roberts Ditch ^{2/}	5-27a	-	1,650	-		x		x		x	-	-	-	-	5,250	-	-	-	-	-	121	121	242			x
Butte City	5-34	28,000	12,000	8,000		x		x		x	-	-	-	33.4	-	-	12,000	-	-	-	1,600	485	2,090			x
Walker Cr	5-35	3,000	23,000	-		x		x		x	9	1,240	13,800	-	42,400	142	-	-	-	-	8,480	5,570	14,100			x
Willow Cr	5-36	3,000	2,500	300		x		x		x	2	1,600	17,300	-	14,380	10	-	-	-	-	4,565	2,180	6,750		x	
Butte Cr	5-37	1,000	2,000	500	x		x		x		4	1,550	17,300	0.5	21,390	-	-	11,700	300	-	9,530	5,080	14,600			x
Pine Cr	5-38	8,000	-	2,000		x	x		x		2	2,160	13,700	1.7	-	-	-	-	-	-	13,500	664	14,200	x		
McClure Cr	5-39	8,000	15,000	-		x	x		x		2	370	10,400	-	6,700	-	-	-	-	-	5,190	2,020	7,210		x	
Jackson Cr	5-40	1,000	-	600		x		x		x	1	50	1,400	4.0	-	-	-	-	-	-	1,180	366	1,550	x		
Burch-Rice Cr	5-41	8,100	-	5,000		x	x		x		6	720	8,220	-	6,120	-	5,000	-	1,560	-	4,600	2,540	7,150			x
Champlain Slough ^{2/}	5-42	1,200	200	-		x		x		x	-	-	-	4.9	-	-	-	-	-	-	297	77	374		x	
Antelope Cr	5-43	2,515	-	-		x	x		x		3	2,090	20,500	2.5	33,110	-	-	-	-	-	16,400	6,300	22,700		x	
Salt Cr	5-44	11,000	-	-	^{1/}	x	x		x		2	290	3,600	0.4	-	-	-	-	1,800	-	1,580	522	2,105		x	

^{1/} Water Quality Problem

^{2/} P.I. or Other Report

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

SACRAMENTO BASIN SUBREGION

WATERSHED NAME & NO.		PROBLEMS								P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY			
		Flood Plain Ac.	Irrig Ac.	Drain- age Ac.	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams No.	Sedi- ment Stor. Ac-Ft	Flood Stor. Ac-Ft	Control Channel Miles	Irrigation		Drain- age Mains Ac.	M&I Storage Ac-Ft	Rec. Storage Ac-Ft	F&W Storage Ac-Ft	PL 566 Cost (\$1,000)	Local Cost (\$1,000)	Total Cost (\$1,000)	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Yes	No	Yes	No	Yes	No					Stor.	Canals										
Anderson Cr	5-45	800	4,000	350		x	x			x	2	130	4,800	-	-	-	-	-	9,400	-	1,770	1,090	2,860		x	
Olney Cr	5-46	105	600	-		x	x			x	3	180	6,100	-	10,400	-	-	-	5,800	-	2,660	1,420	4,060			x
Churn Cr	5-47	675	-	-		x	x			x	1	240	6,700	-	17,400	-	-	-	660	-	3,010	2,620	5,630			x
Stillwater Cr	5-48	375	-	-		x	x			x	6	500	16,350	0.9	11,600	-	-	-	18,600	-	6,410	4,220	10,600		x	
Parker Cr	5a-1	4,320	4,800	600	x		x			x	1	970	1,870	-	1,150	5.0	-	-	-	-	341	311	652			x
West Valley	5a-2	10,000	9,000	-		x		x		x	1	2,000	4,800	2.5	-	-	-	-	-	-	1,040	50	1,090			x
Stones Canyon- Sears Flat	5a-3	2,000	-	-	x		x			x	4	1,760	3,200	-	2,025	-	-	-	-	-	1,610	478	2,085			x
W. Pit R.	5a-4	15,040	-	2,000	x			x		x	-	-	-	24.0	-	-	-	-	-	-	3,180	224	3,400		x	
Adin Area	5a-5	2,000	4,000	-		x	x			x	3	3,000	7,300	-	9,000	-	-	-	-	-	918	580	1,500		x	
Big Valley- Willow Cr	5a-6	1,000	4,240	-		x	x			x	1	1,080	2,160	-	9,000	-	-	-	-	-	294	125	419			x
Frazier Cr	5a-7	1,050	-	-		x		x		x	1	1,300	1,300	6.2	-	-	-	-	-	-	735	41	776		x	
Hat Cr	5a-8	1,000	2,000	200		x	x			x	1	1,080	4,800	11.3	3,000	-	-	-	500	-	3,590	922	4,510		x	
Burney Cr	5a-9	1,100	2,000	200	x		x			x	1	1,140	9,100	1.0	14,260	5.0	-	-	1,000	-	4,260	1,470	5,720		x	
Upper Stoney Cr ^{2/}	5c-1	55	1,600	-		x	x			x	-	-	-	-	6,350	-	-	-	-	-	843	456	1,300			x
Chrome-Newville	5c-2	-	4,680	-		x		x		x	-	-	-	-	14,000	-	-	-	-	-	280	190	470			x
Bear Valley	5d-1	-	8,000	-	x ^{1/}		x			x	1	50	500	-	1,800	2.0	-	-	-	-	489	242	731		x	
Capay Valley ^{2/}	5d-2	-	12,000	-		x	x			x	1	-	-	-	700	-	-	-	2,400	-	2,230	2,030	4,260			x
Hungry Hollow ^{2/}	5d-5	1,200	-	-		x	x			x	-	-	-	1.1	-	-	-	-	-	-	432	152	584			x
Willow Slough ^{3/}	5d-8	51,000	-	-		x	x			x	1	250	2,050	28.0	-	-	-	-	1,700	-	3,505	1,200	4,701			x
Long Valley	5d-13	200	2,300	-		x	x			x	3	490	3,700	3.0	5,050	-	-	13,500	650	-	3,490	3,110	6,600			x
Burns Valley Cr	5d-14	100	450	-	x		x			x	4	210	1,450	0.5	800	-	-	1,400	100	-	1,040	1,130	2,160		x	
Seigler Springs ^{2/}	5d-15	-	400	-	x		x			x	1	-	-	-	3,100	-	-	9,700	-	-	293	2,200	2,490			x

^{1/} Water Quality Problem

^{2/} P.I. or Other Report

^{3/} Work Plan

Page 6

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

SACRAMENTO BASIN SUBREGION

WATERSHED NAME & NO.		PROBLEMS								P. L. 566 STRUCTURAL MEASURES										GENERAL COST*			FEASIBILITY			
		Flood Plain Ac.	Irrig Ac.	Drain- age Ac.	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams No.	Sedi- ment Stor. Ac-Ft	Flood Stor. Ac-Ft	Control Channel Miles	Irrigation		Drain- age Mains Ac.	M&I Storage Ac-Ft	Rec. Storage Ac-Ft	F&W Storage Ac-Ft	PL 566 Cost (\$1,000)	Local Cost (\$1,000)	Total Cost (\$1,000)	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Yes	No	Yes	No	Yes	No					Stor.	Canals										
Hutchinson-Dry Cr	5e-1	1,150	6,025	1,500	x		x		x		3	490	6,730	-	18,700	-	-	-	-	-	1,960	1,225	3,185		x	
Wymans Ravine ^{2/}	5e-14	5,600	2,500	-	x ^{1/}			x	x		4	180	2,940	1.1	4,000	-	-	320	-	-	1,200	553	2,470			x
Honcut Cr	5e-15	2,000	25,000	-	<u>1/</u>	x	x		x		4	1,630	8,130	-	40,000	-	-	-	400	-	6,160	1,865	8,030		x	
Last Chance	5e1-1	10,000	25,600	5,000		x	x		x		-	490	6,730	-	27,200	30	5,000	-	-	-	1,960	1,225	3,185		x	
Sheep Camp	5e1-2	1,500	6,400	-	<u>1/</u>	x	x		x		2	240	3,200	-	28,100	-	-	-	-	-	2,460	2,200	4,660			x
Pats Meadow	5e1-5	580	5,120	4,620	<u>1/</u>	x	x		x		3	515	12,900	-	15,500	-	2,000	-	-	-	7,605	2,410	10,000	x		
Lincoln Valley	5e1-6	-	2,800	-		x	x		x		-	-	-	-	16,300	-	-	-	-	-	5,300	3,550	8,850	x		
Rock Cr ^{2/}	5e2a-1	1,200	-	500	x ^{1/}		x		x		1	500	5,000	-	-	-	-	-	-	-	2,110	118	2,230			x
American Valley ^{2/}	5e2a-2	1,200	-	500	x ^{1/}		x		x		-	-	-	7.0	-	-	-	-	-	-	2,720	272	2,990			x
Lone Rock	5a2a1-1	8,000	-	-	<u>1/</u>	x	x		x		-	-	-	5.9	-	-	-	-	-	-	1,260	125	1,390	x		
Lights Cr	5e2a1-2	2,000	1,400	1,000		x	x		x		3	690	8,100	-	15,200	-	-	-	-	-	7,850	3,980	11,800	x		
Wolfe Cr	5e2a1-3	2,400	2,400	1,200	<u>1/</u>	x	x			x	1	330	9,000	-	15,500	-	-	-	100	-	3,540	1,470	5,010		x	
San Juan Ridge ^{2/}	5e3-5&6	-	12,500	-	x ^{1/}		x		x		1	-	-	-	2,160	-	-	-	-	-	284	236	520			x
Coyote Cr	5g-2	-	2,170	-		x	x		x		4	270	1,100	-	4,200	-	-	500	700	-	2,980	1,830	4,810		x	
Upper Putah Cr	5g-3	230	3,280	-	x		x		x		2	810	7,500	-	-	-	-	-	500	-	4,910	1,955	6,865	x		
Clover Valley ^{2/}	5d-16	-	1,000	7,680		x		x		x	1	550	-	-	2,050	-	-	-	-	-	649	502	343			x
Forbes Cr ^{2/}	5d-17	101	-	900		x		x	x		2	50	200	0.4	-	-	-	-	-	-	273	70				x

^{1/} Water Quality Problem

^{2/} P.I. or Other Report

^{3/} Work Plan

Page 7

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

SACRAMENTO BASIN SUBREGION

4-3 Goose Lake - An application was received in April 1968. See the plans "Phase 1 & 2" developed by Berndtson Northwest, Inc., Pleasant Hill, Calif. This report indicates that a water management project would be feasible. A change in land use would be from dryland to irrigated.

5-1a Spring & Salt Creek - There is no application on file. The project would reduce flooding of agricultural lands and also provide irrigation water. A significant reduction in silt (which ultimately finds its way into the main Sacramento River system) would also be accomplished. There will be no major change in land other than that resulting from providing a firm irrigation supply for land now being dry-farmed.

5-2 Coon Creek - Auburn Ravine - The application was received April 1967, and the preliminary investigation has been completed. The project would provide flood protection for agricultural and urban areas, water for fish and wildlife, and a reduction of the silt load now entering the main Sacramento system. Recreation facilities will be included in the development. Although no significant land use changes are envisioned, a firm supply of water will enable a shift from low to high income crops and will contribute to the stabilization of the local economy.

5-21 Petroleum Creek - There is no application on file. The project would provide flood protection for agricultural lands and water for irrigation. It would also reduce sediment loads entering the main Sacramento River system. There would be no change in land use other

than the shifting of some acreage from dryland farming to irrigated agriculture and a general bolstering of the economy of the area.

5-22 Salt Creek - There is no application on file. The project would provide control of flood water on the lowlands along the Sacramento River. Storage of needed irrigation water, and also a significant amount of sediment storage, reducing the sediment input into the Sacramento. The major change in land use would be a wider range of crops resulting from the steady water supply.

5-23 Munson Basin - There is no application on file. (See the "Drainage Report" in the file under Engineering Computations for the Sacramento Basin.) This is a basin without a natural outlet; therefore, the project would provide for the disposal of floodwater and surface runoff, as well as seepage water from the Sacramento River. The change in land use would probably be from dryland grains to irrigated row crop farming.

5-24 Sand Creek - There is no application on file. The project would provide structures for flood water detention and flood channels for safe disposal of excess surface water. The project would also provide sediment storage, which will significantly reduce the quantities of sediment entering the Sacramento River through this tributary. Irrigation water storage will also be provided. There will be no change in land use, except that supplemental water will make it possible to grow a wider variety of crops, and an increase in production would be expected.

5-25 Cortina Creek - There is no application on file. The project includes measures to control the over topping of existing levees, and store a large quantity of sediment (which will reduce the load entering the Sacramento River). The project would also provide storage for much needed irrigation water. Some water could also be made available for pollution control by providing dilution water for drainage effluent. A change from dryland grain to irrigated pasture, alfalfa, row crops and orchards could be accomplished through this project which would enhance the economic climate of the area.

5-26 Freshwater Creek - There is no application on file. The project would install measures to control flooding of agricultural lands and provide for storage of irrigation water, and also provide a sizable sediment pool which would contribute greatly to a reduction in sediment loads carried into the Sacramento. There would be no major changes in land use.

5-27 Hopkins Slough & Drainage - There is no application on file. The project would install channels to dispose of both excess surface runoff (floodwater) and summer irrigation drainage. This is a landlocked basin with no natural outlet for either flood waters or irrigation drainage. The project would consist of channels to carry runoff and pumping plants to pump out the basin. There would be no basic change in land use, outside of a wider variety and higher yields.

5-27a Roberts Ditch Irrigation & Drainage - There is no application on file. The project would provide canals for the increased distribution of water for irrigation. No basic changes in land use are expected - yields would increase and water would be conserved.

5-34 Butte City - There is no application on file. The project would install measures that would prevent flood damage to cropland and irrigation systems. The land use would change from dryland to irrigated land, with more orchard planting.

5-35 Walker Creek - No application is on file. The project would install measures that would prevent flood damage to agricultural land, provide storage for irrigation, water and rehabilitate irrigation canals. No change in land use is foreseen.

5-36 Willow Creek - There is no application on file. The project would install measures that would control flooding of agricultural lands, provide storage for irrigation water, and rehabilitate irrigation canals. There would be no change in land use.

5-37 Butte Creek - No application is on file. The project would provide flood protection for agricultural lands, and storage of irrigation and M&I water. Recreation storage will also be provided. No change in land use is expected.

5-38 Pine Creek - No application is on file. The project would install flood control measures to prevent flooding of agricultural lands. There would be no change in land use, though yields may increase 25% or more.

5-39 McClure Creek - There is no application on file. The project would install measures that would prevent flooding and deposition of silt and debris on level lands and lands in permanent crops. Irrigation water storage would also be provided. The land use would change to orchards.

5-40 Jackson Creek - There is no application on file. The project would install measures to control flooding on agricultural and urban lands; the land use would become more intensive.

5-41 Burch - Rice Creek - An application was received and approved by the State Soil Conservation Commission in August 1968. A preliminary investigation is under way. The project would furnish flood protection on agricultural and urban areas. No change in land use is expected, though yields would increase.

5-42 Champlain Slough - A work plan is being prepared at present. The project would install flood channels of sufficient capacity to control flooding of agricultural lands. The land use would become more intensive.

5-43 Antelope Creek - (Antelope & Salt Creek) An application has been received for a preliminary investigation. The project would install measures to furnish flood protection to agricultural and urban areas. It would provide storage for irrigation water. No change in land use is foreseen.

5-44 - (This project was combined with the proposed Antelope Creek P.L. 566 Project.)

5-45 Anderson Creek - No application is on file. The project would provide flood protection to agricultural and urban areas. Storage would be provided for recreation water. The land use would become more intensive.

5-46 Olney Creek - There is no application on file. The project would provide protection to urban dwellings, commercial property, farmland, highways, roads, utilities and a golf course; it would also provide irrigation water. No change in land use is foreseen.

5-47 Churn Creek - There is no application on file. The Corps of Engineers has made extensive studies in the area. The CNI indicates damage has been considerable in 55, 58 & 64, with some flooding each year. The project would provide protection to agricultural and urban areas. There will be no change in land use.

5-48 Stillwater Creek - No application is on file. The project would provide protection to agricultural areas, and reduce bank cutting and loss of land during floods. The land use would become more intensive.

5a-1 Parker Creek - An application for a preliminary investigation has been received. The project would reduce channel cutting and debris deposition on fields. Flooding of Alturas would be eliminated or reduced, and damage to highways and railroad and irrigation structures would be eliminated. There would be no change in land use, though yields would increase.

5a-2 West Valley - There is no application on file. The project would reduce the flooding of agricultural lands and furnish irrigation water to downstream Pit River areas. No change in land use would result.

5a-3 Stones Canyon - Sears Flat - An application for a preliminary investigation has already been made. The project would reduce flooding of agricultural lands, road damage, and sediment in fields. It contains a good dam site, and would store irrigation water in a proposed reservoir. This water could be used to irrigate lands south and west of the Pit River downstream of Highway 395. There would be little change in land use, though yields would improve.

5a-4 West Pit River - No application is on file. The project would enlarge the channel of Pit River to allow for flood flows. At present flood water backs up and floods the surrounding areas. No change in land use is expected.

5a-5 Adin Area - There is no application on file. The project would reduce flood damage on agricultural lands and county roads and provide storage for needed irrigation water. The area has good dam sites. No change in land use is expected.

5a-6 Big Valley - Willow Creek - There is no application on file. The project is needed to control or reduce deposition of sand & gravel on farmlands and protect irrigation ditches and levees. 800 Acres of presently dry farmed land could be converted to irrigated alfalfa.

5a-7 Frazier Creek - A P.I. was conducted in 1963. The project would reduce flooding of agricultural lands. At present, once flooded, the water remains on the land until midsummer. The land use would become more intense. Better irrigated pasture and row crops are expected.

5a-8 Hat Creek - No application is on file. The project would reduce the flooding of croplands and damage to homes. The storage of irrigation water would also be provided for. There would be no change in land use, but yields and farm income would increase.

5a-9 Burney Creek - A preliminary investigation has been completed. The project would mainly provide needed protection to industrial areas. The land use on 100 acres would change from pasture to potatoes.

5c-1 Upper Stony Creek - A preliminary investigation was requested and completed. The project would provide for storage of needed irrigation water. No change in land use is expected.

5c-2 Chrome-Newville - No application is on file. The project would provide for storage of irrigation water. There would be no change in land use.

5d-1 Bear Valley - There is no application on file. The project would reduce erosion on cropland, and provide storage for irrigation water and rehabilitation of irrigation canals. A change in land use from dryland grain to irrigated pasture and alfalfa would probably follow completion of the project.

5d-2 Capay Valley - A work plan is being prepared by SDSC and sponsors. The project would provide water for irrigation and recreation. Land use will change from pasture and grain to orchards and row crops.

5d-5 Hungry Hollow - A work plan is being prepared by the SCS and sponsors. The project has a favorable B/C ratio. The project would install flood control channels to reduce the flooding of cropland. There would be no change in land use.

5d-8 Willow Slough - The work is being prepared by Boyle Engineering. The project would reduce flood damages in agricultural and urban areas and provide storage for recreation. It would also provide sediment storage from the upper watershed. A change in land use to higher income crops is foreseen.

5d-13 Long Valley - A preliminary investigation has been requested. The project would reduce erosion damage on agricultural lands, and provide irrigation M&I and recreation water. The land use would change from dry-land grain to orchard.

5d-14 Burns Valley - There is no application on file. A field reconnaissance made July 1963 reported favorably on a proposed dam to store flood water and irrigation water. Any future study should include water for M&I and recreation. No change in land use would result.

5d-15 Seigler Springs - There is no application on file. A watershed investigation report was made under Type IV River Basin Survey. The project would provide water for irrigation and M&I. There would be no change in land use.

5e-1 Dry Creek & Hutchinson Creek - There is no application on file.

The project would permit the use of land to its full capability. The disposal of sewage is disrupted during flood flows, with damage to crops. The land use would become more intensive with higher return to farmers.

5e-14 Wymans Ravine - No application is on file. The project would reduce flood damage to cropland, and urban and industrial areas. Flooding also creates a high water table. There would be no change in land use, though yields would increase.

5e-15 Honcut Creek - There is no application on file. The project would provide flood protection to 2,000 acres of cropland, and storage for irrigation and recreation water. The land use would change from dryland to irrigated lands.

5e-1 Last Chance - There is no application on file. The project would reduce flooding on pasture lands and high water table resulting from flooding, and provide project drains and storage for irrigation water. There would be no change in land use, but yields would increase.

5e-2 Sheep Camp - No application is on file. The project would provide flood protection to croplands and reduce a high water table. Storage for irrigation water would also be provided. No change in land use is expected.

5e-5 Pat's Meadow - There is no application on file. The project would provide flood protection to homes in Loyalton near Smith Creek. The agricultural land flooded is mostly pasture. No change in land use would result.

5e1-6 Lincoln Valley - No application is on file. The project would provide storage for irrigation water. No change in land use is foreseen.

5e2(a)-1 Rock Creek - A work plan being prepared by the SDSC and the sponsors. The project would mainly provide flood protection to agricultural and urban areas. There would be no change in land use.

5e2(a)-2 American Valley - A preliminary investigation has been completed. The planning authorization is pending. The project would provide flood protection to agricultural, urban, and industrial areas. There would be no change in land use.

5e2(a)(1)-1 Lone Rock Creek - No application is on file. The project would reduce siltation in Antelope Reservoir. No change in land use is expected.

5e2(a)(1)-2 Lights Creek - There is no application on file. The project would provide flood protection on agricultural lands plus storage for irrigation water. No change in land use would result, though yields would increase.

5e2(a)(1)-3 Wolfe Creek - No application is on file. The project would protect meadow pasture and croplands from inundation, reduce sediment in the lower flood plain, and provide storage for irrigation water. There would be no change in land use; the production would increase.

5e3-5&6 San Juan Ridge - The preliminary investigation has been completed. Also the "Feasibility Report," North San Juan Ridge Co. Water District, May 1965. This program is a water management project which

5e3-5&6 San Juan Ridge (Contd.) - will provide water for agricultural, municipal, and recreation purposes and has been found to have a favorable B/C ratio. Although no change in land use is contemplated a firm supply of irrigation water will be available to irrigated areas, which will greatly enhance the agricultural economy of the area.

5g-2 Coyote Creek - There is no application on file. The project would reduce streambank erosion and drainage problems; storage for irrigation, M&I, and recreation water will be a part of the project. The land use would change from dryland to irrigated.

5g-3 Upper Putah Creek - There is no application on file. A portion of this project is under consideration by SDSC. The project would provide protection to agricultural lands and urban areas. The land use would not change.

5d-16 Clover Valley - A watershed inventory report has been prepared. The sole immediate purpose of the project is to provide additional irrigation water, though there may be some subsidiary recreational benefits. There would be no change in land use, but an increase in yields.

5d-17 Forbes Creek - A watershed inventory report has been prepared. The project will provide flood control protection downstream, particularly for Lakeport. Other benefits would be negligible, and there would be no change in land use.

Project No	Name	Area
4-3	Goose Lake	59,585 Ac.
5a-1	Parker Creek	48,000
5a-2	West Valley	166,660
5a-3	Stone Canyon - Sears Flat	120,160
5a-4	West Pit River	18,300
5a-5	Adin Area	201,000
5a-6	Big Valley - Willow Creek	64,603
5a-7	Frazier Creek	32,000
5a-8	Hat Creek	213,600
5a-9	Burney Creek	64,140
5e-1	Hutchinson - Dry Creek	58,297
5e-14	Wymont Ravine	24,600
5e-15	Hancut Creek	105,088
5e1-1	Last Chance	47,360
5e1-2	Sheep Camp	21,860
5e1-5	Pats Meadow	42,240
5e1-6	Lincoln Valley	3,000
5e3-5B6	San Juan Ridge	65,840
5e2(a)-1	Rock Creek	22,400
5e2(a)-2	American Valley	88,400
5e2(a)(1)-1	Lane Ranch	8,000
5e2(a)(1)-2	Lights Creek	48,300
5e2(a)(1)-3	Wolfe Creek	45,760
5d-16	Claver Valley	20,000
5d-17	Forbes Creek	2,200 Ac.

HYDROLOGIC SUB-REGIONS

NC - NORTH COASTAL
SF - SAN FRANCISCO BAY
CC - CENTRAL COASTAL
SC - SOUTH COASTAL
SB - SACRAMENTO BASIN
DC - DELTA CENTRAL SIERRA
SJ - SAN JOAQUIN BASIN
TB - TULARE BASIN
NL - NORTH LAHONTAN
SL - SOUTH LAHONTAN
CO - COLORADO DESERT

SCALE IN MILES
SCALE 1:267,200



AUTHORIZED PL 566 PROJECT
POTENTIAL PL 566 PROJECT
AREA BOUNDARIES

Project No	Name	Area
5-1a	Spring 8 Salt Creeks	84,870 Ac.
5-2	Caon Creek	186,800
5-21	Petroleum Creek	30,883
5-22	Salt & Elk Creeks	28,703
5-23	Munson Basin	6,787
5-24	Sand Creek	27,317
5-25	Corlino Creek	45,491
5-26	Freshwater Creek	33,584
5-27	Hopkins Slough	6,330
5-27a	Roberts Ditch	9,480
5-34	Butte City	42,160
5-35	Walker Creek	101,760
5-36	Willow - Wilson Creek	61,960
5-37	Butte Creek	97,920
5-38	Pine Creek	114,080
5-39	McClure Creek	34,000
5-40	Jackson Creek	7,500
5-41	Burch-Rice Creek	122,030 Ac.

Project No	Name	Area
5-42	Champlain Slough	7,670 Ac.
5-43	Antelope Creek	134,000
5-44	Salt Creek	20,900
5-45	Anderson Creek	13,560
5-46	Olney Creek	16,200
5-47	Churn Creek	23,640
5-48	Stillwater Creek	48,000
5e-1	Upper Stony Creek	146,965
5e-2	Chrome - Newville	13,952
5d-1	Bear Valley	72,550
5d-2	Capay Valley	113,744
5d-5	Hungry Hollow	35,968
5d-8	Willow Slough	131,520
5d-13	Long Valley	19,200
5d-14	Burns Valley Creek	7,680
5d-15	Seligers Springs	5,120
5g-2	Coyote Creek	37,330
5g-3	Upper Putah Creek	49,216
5d-18	Adobe Creek	21,500 Ac.

SACRAMENTO BASIN
SUB-REGION

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DATE: _____
APPROVED BY: _____
TITLE: _____
BY: _____
FOR: _____



CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

NORTH LAHONTAN SUBREGION

WATERSHED NAME & NO.		PROBLEMS									P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain	Irrig Ac.	Drain- age Ac.	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams No.	Sedi- ment Stor. Ac-Ft	Flood Stor. Ac-Ft	Control Channel Miles	Irrigation		Drain- age Mains Ac.	M&I Storage Ac-Ft	Rec. Storage Ac-Ft	F&W Storage Ac-Ft	PL 566 Cost (\$1,000)	Local Cost (\$1,000)	Total Cost (\$1,000)	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Yes	No	Yes	No	Yes	No					Stor.	Canals										
Walker Basin	7a1-1	10,900	24,000	15,000		x	x		x		-	-	-	2.9	-	-	-	-	-	-	127	42	169			x
Walker Lake Basin	7a2-3	400	-	-		x	x		x	-	-	-	2.0	-	-	-	-	-	-	-	Costs included with 7a2-4					x
Walker Lake Basin-Antelope Valley	7a2-4	1,500	9,500	4,000		x	x		x	2	490	12,510	-	43,000	-	-	-	-	-	-	3,190	1,690	4,880			x
Billy Mack Cr	9a-2	100	-	-		x			x	1	50	350	0.5	-	-	-	-	-	-	-	937	116	1,050			x
Upper Truckee R	9a1-2	1,000	-	-	<u>1/</u>		x		x	2	310	4,000	10.0	-	-	-	-	-	-	-	3,320	680	4,000		x	
Tahoe Vista- Griff Cr	9a1-4	2,000	-	-	<u>1/</u>		x		x	1	-	-	0.2	-	-	-	-	-	-	-	549	250	799			x
Trout Cr	9a1-43	100	-	-	<u>1/</u>		x		x	2	640	7,700	0.25	-	-	-	-	-	-	-	2,310	500	2,810	x		
Blackwood Cr	9a1-62	2,600	-	-	<u>1/</u>		x		x	1	180	1,700	0.2	-	-	-	-	-	-	-	2,100	200	2,300		x	
Ward Cr	9a1-63	300	-	-	x		x		x	1	200	1,500	0.2	-	-	-	-	-	-	-	1,650	100	1,750			x
Warner Mt. So.	10-13	20,000	20,800	-	x		x		x	-	-	-	32.6	78,880	31 <u>2/</u>	-	-	-	-	-	16,700	3,880	20,600			x
Honey Lake B.	11-1	4,000	3,400	-		x	x		x	1	1,920	3,840	-	3,070	5.0	-	-	3,070	-	524	672	1,200			x	
Honey Lake B.	11-2	1,000	3,000	-		x	x		x	1	3,220	6,440	-	5,170	-	-	-	5,170	-	1,680	1,290	2,970		x		
Willow Cr ^{3/}	11a-1	1,000	6,300	-		x	x		x	-	-	-	-	15,000	-	-	-	1,000	-	3,380	2,340	5,720		x		
Susan R.	11a-2	18,700	5,000	3,000		x	x		x	5	2,420	10,000	7.6	-	-	-	-	4,120	-	6,575	1,040	7,610	x			
Warner Mt. No.	12-7	25,200	15,000	-	x		x		x	2	880	1,955	6.75	-	-	-	-	-	-	-	5,260	1,360	6,620		x	

1/ Water Quality Problem Exists

2/ Diversions

3/ Work Plan

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

NORTH LAHONTIAN SUBREGION

7a1-1 Walker Basin - There is no application on file. The project would prevent flooding of urban areas and would greatly reduce flood damage to agricultural land which permit an upgrading of the local agriculture and thus increase the income from it. There would be no significant change in land use patterns.

7a2-3 & 7a2-4 Walker Lake Basin (Upper Reach) & Antelope Valley - No application is on file. These two projects are closely related; structures installed in 7a2-3 would benefit 7a2-4 both for flood control and irrigation. There would be no significant change in land use. The yields would become more stable due to additional irrigation water.

9a-2 Billy Mack Creek - The preliminary investigation is now being conducted; however, it appears that flood damage to highways and scattered dwellings may be reduced. Sediment yields should be greatly reduced by a land treatment program. No Step "B" was completed for this project.

9a1-2 Upper Truckee River - There is no application on file. The project would benefit urban areas and wildlife habitat mainly. Some reduction of contamination of Lake Tahoe, should result from a greatly reduced sediment yield from the area. There would be no major changes in land use.

9a1-4 Tahoe Vista - Gruff Creek - There is no application on file. The project would furnish protection to urban areas and reduce damage to roads and other facilities. Contamination of Lake Tahoe would be reduced

9al-4 Tahoe Vista - Gruff Creek (Contd.) - by greatly reducing the sediment yield of the creek. There will be no major changes in present land use patterns.

9al-43 Trout Creek - There is no application on file. The project would furnish protection to urban areas, roads, utilities, recreation areas, and wildlife areas, and substantially reduce the sediment now going into Lake Tahoe. There would be no major changes in present land use patterns.

9al-62 Blackwood Creek - There is no application on file. The project would reduce flooding of urban areas and sedimentation of Lake Tahoe, and provide surrounding recreational areas. No change in land use is foreseen.

9al-63 Ward Creek - There is no application on file.

10-13 Warner Mountain South - No application is on file. The project would reduce damage to agricultural lands (5,000 acres) and damage to urban areas, and protect highways and existing structures. There would be no significant change in land use, though the farm economy would be strengthened by a reduction of crop damage due to flooding.

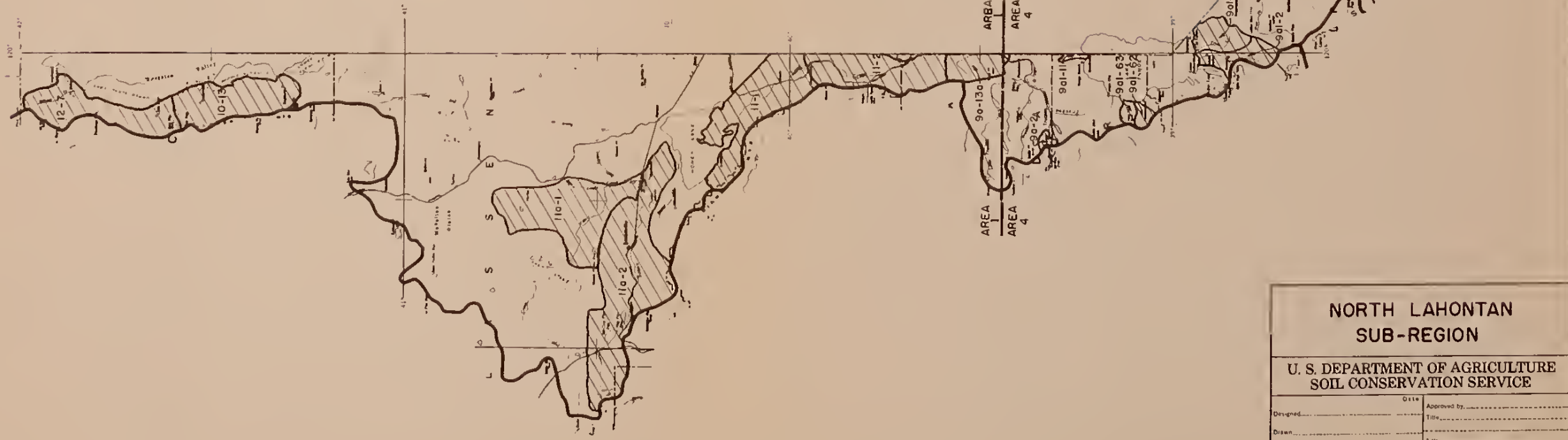
11-1 Honey Lake Basin - There is no application on file. The project would reduce channel bank erosion, and highway and bridge damage. Damage to irrigation ditches and flood levees would also be reduced. No change in land use would result; the farm economy would improve through the reduction of flood damage to agricultural lands and crops.

11-2 Honey Lake Basin - No application is on file. See the note on 11-1.

11a-1 Willow Creek - A work plan is being prepared. The project would reduce damages below the confluence of the Susan River. Annual damages are estimated at \$25,000 on agricultural lands. There would be a significant change in land use from dry to irrigated. The reduction of damages would boost the farm economy.

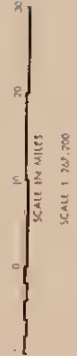
11a-2 Susan River - An application has been received. The project would furnish flood protection to 18,700 acres of agricultural lands, reduce flooding on major highways, and prevent the isolation of communities by inundating flood waters. Some lands could be partially farmed, many acres could be irrigated once the danger of flooding has been decreased. Other than this the land use would not change.

12-7 Warner Mountain North - No application is on file. The project would reduce damage to agricultural lands and urban areas, protect existing irrigation systems, and decrease losses of top soil. Land use would change from hay and pasture to diversified crops. There would be an increase in farm income through increased yields. This area has potential for developing extensive project type gravity flow sprinkler systems supplemented by wells during low flow periods. Large changes in gross income per acre could result in this area with a firm water supply.

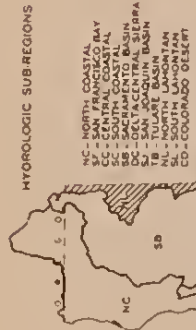


Project No	Name	Area
10-13	Warner Mountain South	109,040 Ac.
11-1	Long Valley - Doyle (71,600)	130,000
11-2	Long Valley - Constantia (95,000)	170,100
12-7	Warner Mountain North	89,130
9a-2	Billy Mack Creek	2,000
9a-13a	Verdi Watershed (21,022)	100,840
11a-1	Willow Creek	160,000
11a-2	Susan River	233,500
7a1-1	Walker Basin, East Walker	236,688
7a2-3	Upper Reach, West Walker	109,424
7a2-4	Antelope Valley, West Walker (68,353)	141,929
9a1-2	Upper Truckee River	36,330
9a1-11	Tahoe Vista - Griff Creek	5,860
9a1-43	Trout Creek	25,400
9a1-62	Blackwood Creek	7,660
9a1-63	Ward Creek	7,680 Ac.

() in California



POTENTIAL P.L. 666 PROJECTS
 AREA BOUNDARIES



NORTH LAHONTAN SUB-REGION			
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE			
Designed _____	Date _____		
Drawn _____	Approved by _____		
Traced _____	Title _____		
Checked _____	Sheet No. _____	Drawing No. _____	

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

NORTH COASTAL SUBREGION

WATERSHED NAME & NO.		PROBLEMS									P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain	Irrig Ac.	Drain- age Ac.	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams No.	Sedi- ment Stor. Ac-Ft	Flood Stor. Ac-Ft	Control Channel Miles	Irrigation		Drain- age Mains Ac.	M&I Storage Ac-Ft	Rec. Storage Ac-Ft	F&W Storage Ac-Ft	PL 566 Cost (\$1,000)	Local Cost (\$1,000)	Total Cost (\$1,000)	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Yes	No	Yes	No	Yes	No					Stor.	Canals Miles										
Jacoby Cr.	0a-1	1,025	2,000	500	x ^{1/}		x		x		2	775	9,400	-	14,900	-	500	5,000	400	4,000	12,400	7,640	20,000		x	
Elk R.	0a-2	300	900	500	<u>1/</u>		x		x		2	950	11,500	-	24,500	-	500	-	500	3,000	8,080	3,875	12,000		x	
Salmon Cr.	0a-3	800	300	800	<u>1/</u>		x		x		1	300	3,700	-	6,600	-	800	-	250	1,500	1,090	1,010	2,500			x
Anderson Valley ^{2/}	0b-1	600	4,100	650	x		x			x	1	-	-	-	3,000	-	-	1,000	2,000	-	2,500	2,960	5,470		x	
Yager Cr.	11-3	1,000	800	-	<u>1/</u>	x	x		x		2	3,210	28,100	-	13,600	4.5	-	-	-	5,000	15,300	3,580	18,900	x		
Little Lake Valley ^{2/}	11-6	1,010	5,000	1,150	x ^{1/}		x		x		1	-	-	6.2	-	15.0	-	9,000	-	-	1,290	490	1,780		x	
Hornbrook- Cottonwood	15-3	150	1,935	-	x ^{1/}		x		x		2	610	9,700	4.0	6,000	5.0	-	500	1,000	-	4,380	1,990	6,370		x	
Willow Cr.	15-4	50	2,000	-		x	x		x		-	-	-	-	6,000	7.4	-	-	200	-	1,350	1,040	2,390	x		
Butte Cr. ^{2/}	15-5	9,780	6,500	10,500	<u>1/</u>	x	x		x		-	-	-	1.0	7,530	-	6,700	-	-	-	690	390	1,080			x
Granada Dam	15b-1	310	11,200	1,800	x		x			x	6	720	4,000	-	21,100	20.0	-	1,800	850	-	10,620	7,220	17,800	x		
Shasta R.	15b-2	105	28,800	500	x		x		x		1	-	-	-	25,000	20.0	-	-	-	-	1,370	1,140	2,510		x	
Big Spring Cr.	15b-3	100	3,500	500		x		x		x	-	-	-	-	5,400	4.5	-	-	-	-	90	67	157			x
Kidder Cr. ^{2/}	15c-1	1,975	10,300	-	x ^{1/}		x		x		4	1,440	20,900	2.0	25,750	-	-	-	600	-	15,840	4,330	20,200	x		
Moffet & McAdams Cr.	15c-2	800	2,500	-	x		x		x		4	1,880	15,000	-	6,250	-	-	-	450	-	8,180	2,450	10,600	x		
Scott R.	15c-4	1,460	12,860	12,860	x		x		x		3	960	10,500	-	16,100	-	-	-	450	-	17,600	3,110	20,700		x	
Hayfork Valley	15e1-1	350	5,500	-	x		x		x		5	5,430	19,400	-	17,000	-	-	1,000	1,000	-	15,300	3,650	18,900		x	

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.



NORTH COASTAL SUBREGION

Oa-1 Jacoby Creek - There is no application on file. The project would provide protection to agricultural and urban areas that are being developed both for agricultural and industrial uses. Some flooding is caused by high tides and inadequate tide gates. The land use could change to orchards.

Oa-2 Elk River - No application on file. A field investigation was made under Type IV River Basin Survey. The project would provide protection for agricultural and urban areas. Provisions for salmon would be considered in any program. The land use would become more intense.

Oa-3 Salmon Creek - No application on file. A field investigation was made under Type IV River Basin Survey. The project would provide flood protection for agricultural lands and urban areas. Tidelands need drainage and protection from high tides. Land use could change from pasture to vegetables.

Ob-1 Anderson Valley - A preliminary investigation has been completed and the report has a favorable B/C Ratio. The project would provide needed irrigation, M&I water, flood prevention, and recreation. Land use would change from dryland to irrigated crops.

11-3 Yager Creek - No application is on file. A field investigation was made under Type IV River Basin Survey. The project would provide protection from flooding and erosion during floods. Water for

11-3 Yager Creek (Contd.) - irrigation is also needed. No change in land use would result.

11-6 Little Lake Valley - A watershed investigation report was made under Type IV River Basin Survey. The project would reduce flooding of valley floor and provide water for irrigation. There would be no change in land use.

15-3 Hornbrook-Cottonwood Creek - No application is on file. A feasibility study was made by McCreary-Koretsky Engineers (1140 Howard Street, San Francisco, California). The area is severely depressed and in need of new industry or income. A project to develop local water supplies for irrigation, M&I and recreation is badly needed. There would be no change in land use, though yields would increase.

15-4 Willow Creek - There is no application on file. A reconnaissance was requested and made in 1959. This project would develop needed irrigation water. Irrigation canals should be rehabilitated. No change in land use would ensue.

15-5 Butte Creek (Butte Valley Watershed) - A preliminary investigation was made in 1967. The project would provide flood control, irrigation and drainage. No change in land use is foreseen.

15b-1 Granada Dam - There is no application on file. The DWR Bulletin #87, "Shasta Valley Investigation," July 1964, describes a project in the same general area - "Granada Ranch Project," pp 103-138. A preliminary investigation was made in 1967. The project would provide

15b-1 Granada Dam (Contd.) - flood control, irrigation and drainage, (though the flood control measures seem insufficient to protect Yreka). There would be little change in land use.

15b-2 Shasta River - This is an agricultural water management project. The work plan is undergoing final review.

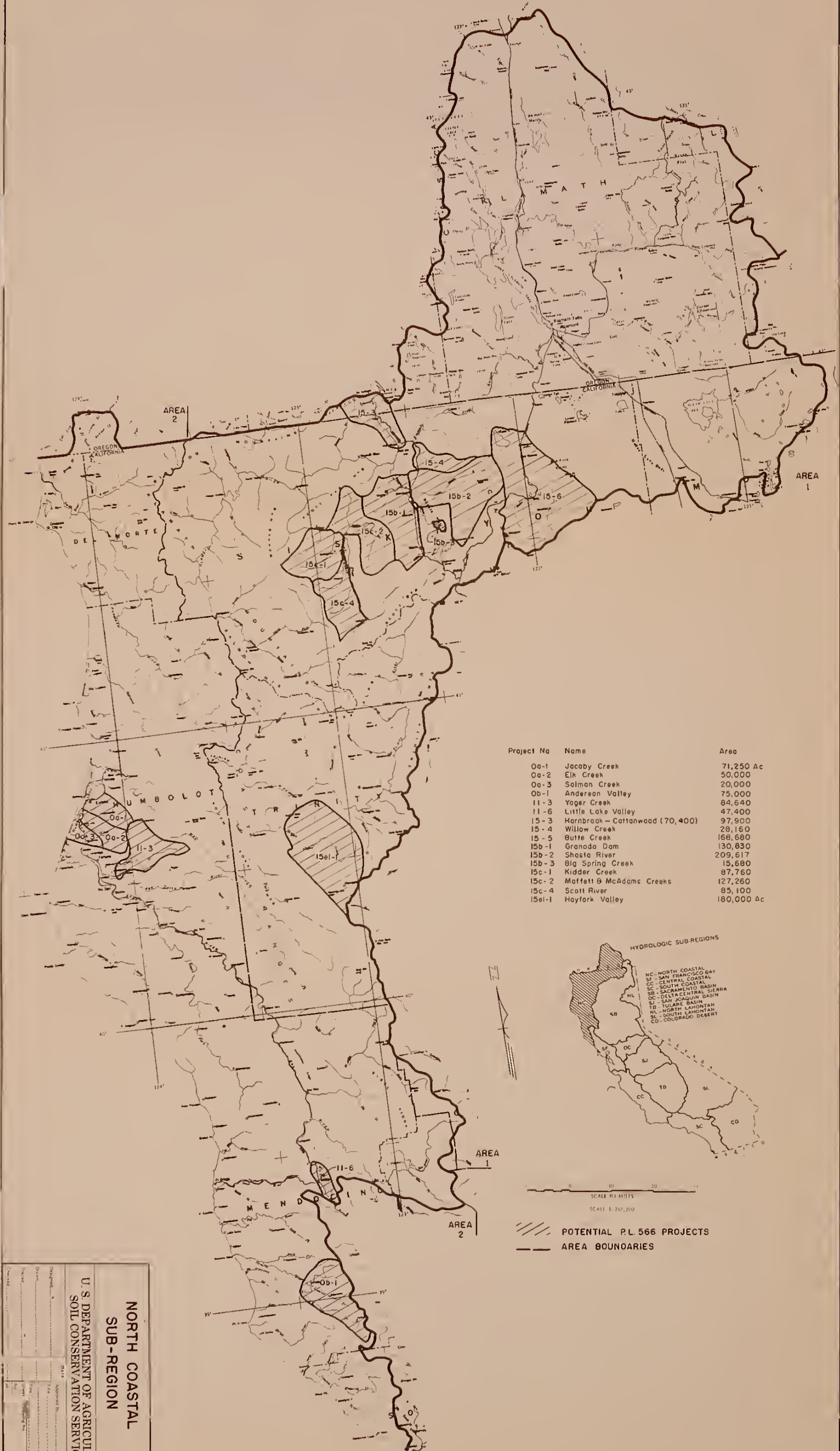
15b-3 Big Springs - There is no application on file. The project would rehabilitate existing irrigation system, replacing wooden flumes and wood stave pipe. The land use would not change.

15c-1 Kidder Creek - A preliminary investigation has been requested and the approval for same obtained. Project would provide needed flood protection, and water for irrigation and recreation. The irrigation system needs rehabilitation. No change in land use would result.

15c-2 Moffet & McAdams - There is no application on file. The project would reduce flood damage on agricultural lands, and provide storage for irrigation and recreation water. There would be no change in land use.

15c-4 Scott River - There is no application on file for the entire project area, but there is one for just 24,300 acres on Etna Creek. The project would provide flood protection to agricultural and urban areas, and provide a firm water supply for irrigation, recreation, and M&I. There would be no basic changes in land use.

15el-1 Hayfork - The approval of a preliminary investigation has been received and is underway. The project would provide flood protection, M&I and agricultural water, recreation, beautification and additional fire protection. Installation of the dams in Hayfork Valley would be a financial benefit to local and county residents. The project is needed in a "sadly" depressed area.



Project No	Name	Area
0a-1	Jacoby Creek	71,250 Ac
0a-2	Elk Creek	50,000
0a-3	Salmon Creek	20,000
0b-1	Anderson Valley	75,000
11-3	Yager Creek	84,640
11-6	Little Lake Valley	47,400
15-3	Hornbrook - Cottonwood (70,400)	97,900
15-4	Willow Creek	28,160
15-5	Butte Creek	168,680
15b-1	Granada Dam	130,830
15b-2	Shasta River	209,617
15b-3	Big Spring Creek	15,680
15c-1	Kidder Creek	87,760
15c-2	Moffett & McAdams Creeks	127,260
15c-4	Scott River	85,100
15el-1	Hayfork Valley	180,000 Ac



SCALE 1:250,000
SCALE 1:250,000

POTENTIAL P.L. 566 PROJECTS
AREA BOUNDARIES

NORTH COASTAL
SUB-REGION
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

SAN FRANCISCO BAY SUBREGION

WATERSHED NAME & NO.		PROBLEMS									P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain	Irrig Ac.	Drain- age Ac.	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams No.	Sedi- ment Stor. Ac-Ft	Flood Stor. Ac-Ft	Control Channel Miles	Irrigation		Drain- age Mains Ac.	M&I Storage Ac-Ft	Rec. Storage Ac-Ft	F&W Storage Ac-Ft	PL 566 Cost (\$1,000)	Local Cost (\$1,000)	Total Cost (\$1,000)	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Yes	No	Yes	No	Yes	No					Stor.	Canals Miles										
Upper Sonoma Cr	Oc-1	100	-	-		x	x		x	7	1,320	7,870	-	-	-	-	-	5,870	-	4,850	3,880	8,735	x			
Walker Cr	Oc-2	-	250	500	x		x		x	4	1,045	710	-	-	-	-	2,300	-	-	570	789	1,360		x		
Upper Napa R ^{2/}	Oc-3	3,200	10,000	7,000	x ^{1/}			x	x	7	745	2,510	7.9	-	-	-	-	-	-	5,530	238	5,760		x		
Matadero Et Al	Od-1	350	-	500	x		x		x	3	140	2,780	1.9	-	-	-	-	3,730	-	2,760	1,150	3,910		x		
Silver Cr	Od-2	1,200	-	440		x	x		x	1	80	2,400	2.1	-	-	-	-	1,100	-	1,170	365	1,530			x	
Fisber Cr	Od-3	2,100	-	1,600		x	x		x	4	65	1,640	2.7	-	-	-	-	1,730	-	1,880	484	2,365		x		
Kirker Cr ^{2/}	Od-11	700	-	-		x		x	x	-	-	-	2.0	-	-	-	-	-	-	1,050	31	1,080		x		
Denniston Cr	Od-6	1,150	1,800	500	x		x		x	1	-	-	-	4,560	15.0	-	-	-	-	2,910	1,840	4,750			x	
Tassajero	Od-8	1,500	750	700	x		x		x	4	540	2,580	7.0	-	-	-	-	-	-	4,420	110	4,530			x	
Pescadero Cr	Od-9	1,010	1,880	300	x		x		x	5	1,770	13,930	-	5,060	8.0	-	-	-	-	5,295	1,940	7,230		x		
Pidgeon Pt.	Od-10	100	5,800	100	x		x		x	1	-	-	-	5,450	6.0	-	-	-	-	1,240	942	2,180			x	
Arroyo Mocbo	Od-7	1,400	750	700	x ^{1/}		x		x	2	485	4,400	8.0	2,910	3.0	-	-	-	-	3,690	584	3,280		x		
Diablo Seal	Od-12	1,180	-	-		x	x		x	2	340	1,340	-	-	-	-	-	860	-	1,530	3,240	4,750			x	
Lower Pine Cr ^{3/}	Od-13	800	-	-		x	x		x	2	45	330	2.5	-	-	-	-	450	-	7,100	2,570	9,670			x	
Upper Pine Cr ^{3/}	Od-14	-	-	-		x	x		x	-	-	-	4.7	-	-	-	-	-	-						x	
Redwood Valley	10-1	85	6,288	200	x ^{1/}			x	x	1	850	2,000	-	7,600	10.0	-	-	-	-	2,660	1,690	4,350			x	
Potter Valley	10-2	100	1,400	5,000	1/	x		x	x	-	-	-	-	-	-	5,000	-	-	-	377	236	613			x	
Sausal Cr	10-3	100	1,500	-		x	x		x	-	-	-	-	4,220	10.0	-	-	-	-	1,510	984	2,490			x	
Mill Cr	10-4	100	-	-		x		x	x	1	1,100	900	1.2	-	-	-	-	-	-	673	80	753	x			
Markwest	10-5	2,150	6,000	3,800	x		x		x	4	580	4,640	3.5	4,640	-	-	-	-	-	1,090	637	1,730			x	
Green Valley Cr	10-6	300	10,000	-		x	x		x	4	1,500	1,355	2.8	2,880	5.0	-	-	-	-	2,190	3,080	5,270		x		
Laguna De Santa Rosa	10-7	3,000	-	10,000		x		x	x	-	-	-	16.2	-	-	-	-	-	-	3,395	190	3,585			x	

^{1/} Water Quality Problem Exists

^{2/} P.I. or Other Report

^{3/} Work Plan

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

SAN FRANCISCO BAY SUBREGION

Oc-1 Upper Sonoma Creek - A P.L. 566 Reconnaissance Report by the State Planning Party has been conducted. The project would control flow in Sonoma Creek, reduce streambank erosion, and eliminate flooding. Recreation and fish enhancement would be secondary benefits. No significant change in land use is foreseen.

Oc-2 Walker Creek - There is no application on file. The agricultural benefits are intangible. The Marin MWD plans to construct a reservoir on Walker Creek. A private company plans to build a reservoir on Salmon Creek for recreation and real estate development. The water rights for irrigation on Chileno Valley Creek have been filed by a private developer. There will be no significant change in land use.

Oc-3 Upper Napa - Planning was authorized on June 17, 1960. A work plan is under preparation by the SCS. The project would reduce flooding on 1,800 acres, land scour on 400 acres, and in general reduce streambank erosion. The land use would change from dryland to vineyards.

Od-1 Matadero Et Al - A planning authorization has been requested. The project would alleviate flooding and silt deposition in the improved sections of channel and also regulate flood flows through tide gates. There will be no significant change in land use--nearly all of the project is urban.

Od-2 Silver Creek - There is no application on file. The project would control runoff and prevent flooding of pasture land. Any change in land use would be mostly to urban.

Od-3 Fisher Creek - No application is on file. The project would reduce flooding and the ponding of water on agricultural lands. No significant change in land use is expected. Crop damage to high value crops would be greatly reduced.

Od-6 Denniston Creek - No application is on file. The project would provide irrigation water. The land use would change from dryland to irrigated land.

Od-7 Mocho Creek - No application is on file. The project would control flooding of agricultural and urban areas. Streambed and streambank erosion would also be reduced. More intensive farming and greater yields should result.

Od-8 Tassajero Creek - There is no application on file. The project would control flooding of agricultural and urban areas, reduce peak flows, and channel erosion. There will be better land use through more intensive farming, resulting in increased farm income.

Od-9 Pescadero Creek - Planning was authorized on August 17, 1964, and suspended on September 2, 1965. The project would control flooding on agricultural lands, and reduce sediment damage to roads and other public facilities. The change in land use would be from dryland to irrigated land.

Od-10 Pidgeon Point - No application is on file. The project is needed mostly for irrigation, which is needed to irrigate row crops. Artichokes will abound in this climate with a firm water supply.

Od-11 Kircker Creek - A preliminary investigation is in progress by the State Soil Conservation Commission. The project would prevent excessive stream degradation and bank erosion, which causes sedimentation in downstream reaches. No significant change in land use would ensue.

Od-12 Mt. Diablo-Seal Creek - A preliminary investigation has been completed, and planning authorization from the Administrator of the Soil Conservation Service has been requested. The project would deal mainly with flood prevention and recreation benefits.

Od-13&14 Lower and Upper Pine Creek - The project has been approved for planning. The work plans are undergoing reviews at this time. The project will furnish flood protection to agricultural and urban areas. The land use change will be mostly to urban.

10-1 Redwood Valley - There is no application on file. See the "Redwood Valley Report" by Carpenter & Mitchell, 1964. The project would reduce flooding of agricultural and urban areas. Irrigation and domestic water are needed. No significant change in land use is foreseen.

10-2 Potter Valley - No application is on file. A watershed investigation report is in progress under Type IV River Basin Survey. No flood control is planned. Drainage is badly needed, both for surface and subsurface problems. Irrigation water management would help to alleviate the present

10-2 Potter Valley (Contd.) - water table problem. No change in land use is expected.

10-3 Sausal Creek - There is no application on file. Sotoyome SCD made a preliminary study of this watershed in 1961. Also, a watershed investigation report was made under the Type IV River Basin Survey. Irrigation is the prime concern, with flood control and recreation benefits secondary. Any change in land use would be from dryland to irrigated land.

10-4 Mill Creek - A Sotoyome SCD study was made in 1959, based on channel improvement. Investigations are still underway by the River Basins Planning Staff. Any land use change would be from dryland to irrigated land.

10-5 Mark West-Windsor Creeks - A preliminary investigation report is in progress by the Sonoma County Flood Control and Water Conservation District. The project will provide for agricultural water, flood control, M&I, recreation, and drainage.

10-6 Green Valley Creek - No application is on file. A watershed investigation was made by the River Basin Planning Staff. Project would provide flood protection, irrigation water and recreation benefits. Any change in land use would be from dryland to irrigated land.

10-7 Upper Laguna De Santa Rosa - Inactive. Project provides surface drainage to agricultural, urban and industrial areas. Land use changes would be to urban and industrial. Some drains have been constructed by local organizations.



SAN FRANCISCO BAY SUB-REGION

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed _____	Date _____	Approved by _____
Drawn _____	Title _____	
Traced _____	Title _____	
Checked _____	Sheet _____	Drawing No. _____
	No. _____	
	of _____	

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

DELTA-CENTRAL SIERRA SUBREGION

WATERSHED NAME & NO.		PROBLEMS									P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain	Irrig	Drain- age	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams	Sedi- ment Stor.	Flood Stor.	Control Channel	Irrigation		Drain- age Mains	M&I Storage	Rec. Storage	F&W Storage	PL 566 Cost	Local Cost	Total Cost	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Yes	No	Yes	No	Yes	No					Stor.	Canals										
		Ac.	Ac.	Ac.	Yes	No	Yes	No	Yes	No	No.	Ac-Ft	Ac-Ft	Miles	Ac-Ft	Miles	Ac.	Ac-Ft	Ac-Ft	Ac-Ft	(\$1,000)	(\$1,000)	(\$1,000)			
Rock & Little John Cr	3-3	3,500	15,000	3,500	x ^{1/}		x		x		3	-	-	-	10,900	50	-	-	-	-	4,535	2,910	7,450		x	
New Jerusalem ^{3/}	3-6	1,000	5,000	13,000	1 ^{1/}	x	x	x		x	-	-	-	-	-	-	11,060	-	-	-	1,205	935	2,140			x
N.F. Calaveras	3d-3	100	30,000	100	x ^{1/}		x		x		-	-	-	-	15,000	9.8	-	-	-	-	4,060	2,550	6,610			x
Potter Cr ^{2/}	3d-4	9,000	2,000	-		x		x		x	-	-	-	7.75	-	-	-	-	-	-	628	172	800		x	
S.F. Calaveras	3d-5	10	11,000	-	x ^{1/}		x		x		2	-	-	-	38,500	7.8	-	-	-	-	7,080	4,450	11,500		x	
Dry Cr-Sutter Cr	3e-2	10,000	-	-		x	x		x		2	1,200	13,800	5.0	8,500	-	-	-	-	-	4,600	2,210	6,820		x	
Mokelumne R	3e-5	500	4,500	-	x ^{1/}		x		x		3	-	-	-	16,000	9.1	-	-	-	-	9,985	6,525	16,500		x	
Deer Cr	3e1-2	8,000	10,000	-		x	x		x		3	890	6,430	10.0	10,900	3.0	-	-	-	-	2,780	1,370	4,110			x
Yolano ^{2/}	5-12a	60,000	-	3,000		x		x		x	-	-	-	14.0	-	-	-	-	-	-	1,180	100	1,280		x	

^{1/} Water Quality Problem Exists

^{2/} P.I. or Other Report

^{3/} Work Plan

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

DELTA CENTRAL SIERRA SUBREGION

3-3 Rock Creek & Little John Creek - No application is on file. Irrigation water is needed. Flood protection would be secondary to this storage of irrigation water. No significant change in land use except that the irrigation water used to supplement an inadequate supply will make more intensive land use possible. Cropping pattern will shift from low income drought resistant grain crops to higher income irrigated crops such as orchards, or irrigated pasture.

3-6 New Jerusalem - Work plan approved, awaiting funding. This is sub-surface drainage only and will permit a shift in cropping the small grains to orchard and row crops, thereby greatly enhancing agricultural income.

3d-3 North Fork Calaveras River - There is no application on file. Agricultural water management and irrigation water are needed. Flood control would be secondary to the storage of irrigation water. See Calaveras Co. Water Development Reports, published 1959, Vol. I & II, published January 1961 (and also later revisions).

3d-4 Potter Creek - Preliminary investigation is in progress. The project would remove excess flood water from land to prevent inundation for long periods and relieve flooding of homes and highways. There would be no significant change in land use except that the project would permit more intensive use. The economy throughout the area would be improved by the project.

3d-5 South Fork Calaveras River - No application on file. The project would store irrigation water and allow for the installation of irrigation canals. The project would permit a shift from low income dry farming to higher income producing irrigated enterprises.

3e-2 Dry Creek & Sutter Creek - There is no application on file. The project would reduce flooding and inundation on agricultural and urban lands. Change in land use would be from pasture to row crops with increased income to operators.

3e-5 Mokelumne River - Flood control measures would be installed by other agencies. No application is on file. Project would store water for irrigation, with flood protection secondary. No significant change in land use; however, much needed supplemental irrigation water would be made available for irrigation areas, which would increase agricultural income.

3e1-2 Deer Creek - No application on file. Project would provide flood protection for agricultural lands and provide for storage of irrigation water. There will be no significant change in land use, but much needed supplemental irrigation water would be provided for irrigated areas. A firm supply of irrigation water would greatly increase agricultural incomes, which in turn would help to stabilize the economy of the area.

5-12a Yolano - The preliminary investigation is being re-evaluated at present. The project would enlarge flood channels to prevent flooding

5-12a Yolano (Contd.) - and the inundation of agricultural lands, thereby enabling more intensive farming operations to be carried out. This in turn would stablize the economy of the area by providing added agricultural income. But there will be no significant change in present land use patterns.

Project No.	Name	Area
3-3	Rack & Little Jahn Creek	71,530 Ac.
3-4	Marsh-Kellagg	116,420
3-6	New Jerusalem	87,040
5-8	Ulatis Creek	96,800
5-12a	Yolano	78,760
3d-2	Masher Creek	15,000
3d-3	North Fork Calaveras River	174,475
3d-4	Patter Creek	36,050
3d-5	South Fork Calaveras River	108,145



3e-2	Dry Creek - Sutter Creek	179,670
3e-5	Mokelumne River	268,367
3e-1	Deer Creek	81,464 Ac.

10 0 10 20 30
SCALE IN MILES

SCALE 1:267,200

- AUTHORIZED P.L. 566 PROJECTS
 POTENTIAL P.L. 566 PROJECTS
 AREA 4

DELTA - CENTRAL SIERRA SUB-REGION

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Desig.	Date	Approved by
Drawn	Title	
Traced	Title	
Checked	Sheet	Drawing No.
	No.	
	of	

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

SAN JOAQUIN BASIN SUBREGION

WATERSHED NAME & NO.		PROBLEMS										P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain	Irrig	Drain- age	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams	Sedi- ment Stor.	Flood Stor.	Control Channel	Irrigation		Drain- age Mains	M&I Storage	Rec. Storage	F&W Storage	PL 566 Cost	Local Cost	Total Cost	Prob Not Feas.	Ques- tion- able	Feasi- ble	
					Yes	No	Yes	No	Yes	No					Stor.	Canals											
																											Ac.
Wesley-Grayson	3-7	-	-	21,130		x	x		x	-	-	-	-	-	-	5,000	-	-	-	381	287	668			x		
Patterson	3-9	-	-	4,190		x	x		x	-	-	-	-	-	-	4,190	-	-	-	393	303	696			x		
Orestimba ^{2/}	3-10	-	-	-	<u>1/</u>	x	x		x	1	-	-	-	-	-		<u>4/</u>	-	-	-	-	1,640	1,640		x		
Newman ^{2/}	3-11	-	-	5,100		x	x		x	-	-	-	-	-	-	5,100	-	-	-	368	289	657			x		
Stevinson Cr ^{2/}	3-14	-	13,000	13,000		x	x		x	-	-	-	-	-	-	13,000	-	-	-	1,820	1,125	2,940			x		
Grass Land ^{2/}	3-15	-	47,600	47,600		x	x		x	-	-	-	-	-	25.0	-	-	-	-	864	576	1,440			x		
San Luis	3-16	-	43,900	43,900	<u>1/</u>	x	x		x	-	-	-	-	-	-	43,900	-	-	-	5,980	3,740	9,720			x		
El Nido- La Branza	3-17	-	26,300	-		x	x		x	-	-	-	-	-	15.0	-	-	-	-	108	68	176			x		
Abatement- Industrial	3-18	840	-	1,000		x	x		x	2	960	13,700	9.4	5,000	-	-	-	1,000	-	2,960	1,420	4,390		x			
Snow Cr	3-19	320	-	-	<u>1/</u>	x	x		x	1	160	1,700	-	2,000	-	-	-	1,340	-	752	424	1,180		x			
Poso	3-20	-	-	30,222		x	x		x	-	-	-	-	-	-	10,750	-	-	-	1,200	1,060	2,560			x		
Panoche	3-21	-	76,000	-	<u>1/</u>	x	x		x	-	-	-	-	-	-	21,120	-	-	-	420	368	788			x		
Lone Willow Slough	3-22	-	2,000	17,230		x	x		x	-	-	-	-	-	5.0	17,320	-	-	-	2,145	1,375	3,520			x		
Dry Cr	3-23	-	2,000	-		x	x		x	3	780	1,900	2.7	1,300	-	-	-	500	-	710	333	1,040			x		
Cottonwood & Root Cr	3-24	6,755	8,000	-		x	x		x	9	1,850	5,700	-	-	5.5	-	-	600	-	1,830	983	2,810			x		
Mustang Cr ^{3/}	3a-1	1,150	-	3,900		x		x	x	2	170	435	4.9	-	-	-	-	-	-	354	338	692			x		
Lower Merced R	3a-3	810	-	400		x	x		x	-	-	-	2.3	-	-	400	-	-	-	224	56	280			x		
Hopeton	3a-4	1,020	4,000	2,000		x	x		x	-	-	-	12.0	-	-	2,000	-	-	-	563	204	767			x		
Maxwell Cr	3a-5	-	2,100	-	<u>x^{1/}</u>		x		x	1	280	2,600	0.9	6,000	-	-	500	250	-	2,590	726	3,320		x			
Bean Cr	3a-6	200	160	200	<u>1/</u>	x	x		x	1	160	1,500	3.2	-	-	-	-	3,800	-	2,390	720	3,110		x			
Skelton Cr	3a-7	80	300	-		x	x		x	-	-	-	2.1	-	1.0	-	-	2,200	-	2,990	1,250	4,240	x				
Tuolumne R	3b-2	-	6,500	-	x		x		x	-	-	-	-	-	15.0	-	-	-	-	2,220	1,390	3,600			x		

^{1/} Water Quality Problem Exists

^{2/} P.I. or Other Report

^{3/} Work Plan

^{4/} This is Water Quality Control Only

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

SAN JOAQUIN BASIN SUBREGION

WATERSHED NAME & NO.		PROBLEMS									P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain	Irrig	Drain- age	M&I		Rec.		Fish &		Stor. Dams	Sedi- ment Stor.	Flood Stor.	Control Channel	Irrigation		Drain- age Mains	M&I Storage	Rec. Storage	F&W Storage	PL 566 Cost	Local Cost	Total Cost	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Water		Water		Wild- life						Stor.	Canals										
					Yes	No	Yes	No	Yes	No																
Sonora "B"	3b-3	-	15,800	-	x		x		x		-	-	-	-	-	60.0	-	-	-	-	24,400	15,200	39,600			x
Groveland	3b-4	-	9,200	-	x		x		x		-	-	-	-	-	48.0	-	-	-	-	4,860	3,040	7,900		x	
Sonora "A"	3c-2	-	5,500	-		x	x		x		-	-	-	-	-	30.0	-	-	-	-	1,750	1,090	2,840			x

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

SAN JOAQUIN SUBREGION

3-7 Wesley Grayson - There is no application on file. The project would be subsurface drainage only and would relieve a high water table now affecting about 5,000 acres. There will be no change in land use other than converting from low income grain crops to higher income orchards and row crops.

3-9 Patterson Drainage Project - Planning was authorized about February 1968. It should become a project. A project will relieve a high water table currently affecting about 4,500 acres. Subsurface drainage is badly needed. At present the agricultural economy is declining, as orchards are being lost at the rate of 100 acres a year. The land use on the affected area will probably go back into orchards and row crops from the grain and pasture now being substituted.

3-10 Orestimba Creek Project - There has been no application to date. The project would store water for water quality control only. It would furnish water for dilution of tile drain effluent entering the San Joaquin River from the Patterson and Newman Drainage projects. No land use changes within the Orestimba project itself.

3-11 Newman Drainage Project - The application was approved November 1967, and the preliminary investigation has been completed. The project would provide a subsurface drainage disposal system for about 4,500 acres currently affected by high ground water. The land use will remain in irrigated agriculture; however, high value row crops and orchards will be

3-11 Newman Drainage Project (Contd.) - grown rather than the grain and pasture now prevalent.

3-14 Stevinson Drainage Project - A preliminary investigation is under way by local people. This is a drainage project; any flood protection will be due to the control of surface water. No change in land use is foreseen.

3-15 Grasslands Drainage Project - The application was approved in March 1967. A preliminary investigation is under way at this time. This is a drainage project; any flood control will be due to the control of surface water. There will be no change in land use.

3-16 San Luis Drainage Enterprise - No application is on file. The project would lower a high water table and reduce a toxic condition in the root zone. Flood control benefits would be due to the removal of surface water. No change in land use is expected, though production would probably increase.

3-17 El Nido-La Branza Water Project - A request for preliminary investigation has been made. The project would provide for the rehabilitation of existing irrigation facilities. The land use would change from pasture and hay to row crops.

3-18 Abatement-Industrial Drainage Project - No application is on file. The project would provide protection to agricultural lands, and industrial and urban areas. Some drainage may be used. An irrigation need would also be filled. Not much change in land use would ensue; production would probably increase.

3-19 Snow Creek - There is no application on file. The project would provide protection to agricultural lands and irrigation water for orchards. Land use changes from hay and pasture to orchard are expected.

3-20 Poso - There is no application on file. The project would provide drains for the removal of a high water table on agricultural lands. There would be no change in land use, though production would probably increase.

3-21 Panoche Drainage Project - An application was received, but not forwarded. A preliminary investigation has been completed by the local officials. The project would provide drains for the removal of a high water table on agricultural lands. No change in land use would result, but production would probably be increased.

3-22 Lone Willow Slough - There is no application on file. The project would provide an outlet channel for drainage water, and drains for lowering high water table on agricultural lands. No change in land use is foreseen.

3-23 Dry Creek - A preliminary investigation has been completed by the local officials. The project would provide flood protection and water for irrigation on agricultural lands. No change in land use would result.

3-24 Cottonwood-Root Creeks - A preliminary investigation is in progress. The project would control flooding on agricultural land, and also provide irrigation canals.

3a-1 Mustang Creek - A project authorization for its construction is now pending.

3a-3 Lower Merced River - No application is on file. The project would provide protection to agricultural areas from flooding, bank erosion, and damage to irrigation systems. There would be no change in land use, though yields would increase.

3a-4 Hopeton Drainage & Irrigation Project - There is no application on file. The project would control flooding and the installation of project drains would lower a high water table. No change in land use is foreseen; but yields would increase.

3a-5 Maxwell Creek - There is no application on file. The project would furnish flood protection to agricultural and urban areas, and provide badly needed M&I water and water for recreation.

3a-6 Bean Creek - No application is on file. The installation of erosion control structures would prevent the channel from eroding mountain meadows. A dam would control flood water and provide for recreation. No change in land use would ensue.

3a-7 Skelton Creek - There is no application on file. The project would control badly eroded channel, reduce excess drainage of mountain meadow, and provide irrigation canals for better control of the irrigation water. No change in land use is expected.

3b-2 Tuolumne River - There is no application on file. Reference is made to DWR Bulletin #95 "Tuolumne County Water District Investigation #2," dated October 1962. The project would rehabilitate irrigation canals and systems and provide water for orchards and pastures, rather than the grain now grown. Agriculture would shift from a dryland to an irrigated orientation.

3b-3 Sonora "B" - There is no application on file. Refer to DWR Bulletin #95. This project would rehabilitate irrigation systems and canals. The change in land use would be from dryland to irrigated agriculture, enhancing agricultural income.

3b-4 Groveland Project - There is no application on file. Refer to DWR Bulletin #96 (which is being revised). The project would consist basically of a pipeline for transportation of irrigation water. The change in land use would be from a dryland to irrigated agriculture, thereby raising agricultural incomes.

3c-2 Sonora "A" - There is no application on file. Refer to DWR Bulletin #95, "Tuolumne Co. Water District Investigation #2" of 1962. Basically, the project would consist of a pipeline for the transportation of irrigation water. The land use would shift from dryland to irrigated agriculture, increasing income.

Project No	Nome	Area
3-7	Westley - Grayson	79,098 Ac.
3-9	Patterson	22,400
3-10	Orestimbo Creek	131,556
3-11	Newman	82,891
3-14	Stevenson Creek	13,300
3-15	Grassland	47,600
3-16	Son Luis	46,000
3-17	El Nido - La Bronza	26,500
3-18	Abatement - Industrial	118,000
3-19	Snow Creek	12,500
3-20	Poso Creek	50,370
3-21	Panoche	77,082
3-22	Lane Willow Slough	21,230
3-23	Dry Creek	44,280
3-24	Cottonwood & Root Creeks	114,450
3a-1	Mustang Creek	14,500
3a-3	Lower Merced River	2,300
3a-4	Hopeton	15,000
3a-5	Maxwell Creek	25,680
3a-6	Beon Creek	4,480
3a-7	Skelton Creek	2,740



HYDROLOGIC SUB-REGIONS

NC - NORTH COASTAL
SF - SAN FRANCISCO BAY
CC - CENTRAL COASTAL
SC - SOUTH COASTAL
SB - SACRAMENTO BASIN
DC - DELTA CENTRAL SIERRA
SJ - SAN JOAQUIN BASIN
TB - TULARE BASIN
NL - NORTH LAHONTAN
SL - SOUTH LAHONTAN
CD - COLORADO DESERT

3b-2	Tuolumne River	147,600
3b-3	Sonoro "B"	51,360
3b-4	Graveland	31,320
3c-2	Sonoro "A"	63,360 Ac.

/// POTENTIAL P.L. 566 PROJECTS
— AREA BOUNDARY

SAN JOAQUIN BASIN SUB-REGION

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed by _____	Approved by _____
Drawn by _____	Field _____
Traced by _____	Sheet _____
Checked by _____	Drawing No. _____



CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

TULARE BASIN SUBREGION

WATERSHED NAME & NO.		PROBLEMS										P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain	Irrig	Drain- age	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams	Sedi- ment Stor.	Flood Stor.	Control Channel	Irrigation		Drain- age Mains	M&I Storage	Rec. Storage	F&W Storage	PL 566 Cost	Local Cost	Total Cost	Prob Not Feas.	Ques- tion- able	Feasi- ble	
					Yes	No	Yes	No	Yes	No					Stor.	Canals											Ac-Ft
Ac.	Ac.	Ac.	Yes	No	Yes	No	Yes	No	No.	Ac-Ft	Ac-Ft	Miles	Ac-Ft	Miles	Ac.	Ac-Ft	Ac-Ft	Ac-Ft	(\$1,000)	(\$1,000)	(\$1,000)						
Buttonwillow ^{3/}	1-1	-	70,180	-	<u>1/</u>	x	x		x		-	-	-	-	-	65	-	-	-	-	4,290	3,650	7,930			x	
Tehachapi ^{2/}	1-2	31,420	2,080	-	x			x		x	2	430	1,360	3.0	-	<u>4/</u>	-	-	-	-	3,410	558	3,970		x		
Caliente Cr	1-3	4,320	-	-	<u>1/</u>			x	x		7	10,290	14,600	-	4,900	-	-	-	-	-	5,510	1,280	6,785		x		
Basin Cr	1-4	16,640	500	-	<u>1/</u>	x	x		x		4	3,000	4,400	-	2,630	-	-	-	-	-	2,950	813	3,760			x	
Lower Caliente Cr	1-5	23,500	23,000	3,000	<u>1/</u>			x	x		-	-	-	9.7	-	<u>4/</u>	-	-	-	-	1,105	300	1,405			x	
Poso Cr	1-6	2,700	5,000	-	<u>1/</u>	x	x		x		4	4,530	6,100	7.7	8,050	-	-	-	-	-	2,780	922	3,700			x	
Pasajero Cr	2-1	16,640	16,640	-	<u>1/</u>			x	x		2	1,330	600	10.9	1,330	-	-	-	-	-	5,010	1,090	6,100		x		
Los Gatos Cr	2-2	20,340	3,200	-	<u>1/</u>			x	x		1	-	-	-	14,600	-	-	-	-	-	3,220	2,290	5,510			x	
Warthan Cr	2-3	13,540	3,840	-	<u>1/</u>			x	x		4	4,200	6,800	-	14,000	-	-	-	-	-	7,330	2,830	10,200			x	
Jacalitos Cr	2-4	14,000	6,400	-	<u>1/</u>	x	x		x		2	1,830	3,300	-	8,100	-	-	-	-	-	1,820	1,040	2,860			x	
Zapato Cr	2-5	17,540	18,800	-	<u>1/</u>	x	x		x		1	1,200	1,700	-	5,330	-	-	-	-	-	1,930	794	2,725			x	
New London	2a-1	-	17,920	-			x		x		-	-	-	-	-	20	-	-	-	-	2,050	1,280	3,330			x	
Stone Corral ^{3/}	2a-2	7,500	-	700			x		x		-	-	-	12.6	-	-	700	-	1,500	-	1,100	417	1,520			x	
Ivanhoe	2a-3	5,440	-	-			x		x		-	-	-	10.0	-	-	300	-	-	-	897	308	1,205			x	
Avenue "A"	2a-4	4,000	-	-			x		x		2	620	2,300	-	-	-	1,000	-	-	-	1,240	253	1,500			x	
Terra Bella	2a-5	10,000	-	2,000			x		x		5	850	4,800	50.0	-	-	-	-	-	-	4,070	1,210	5,280		x		
So. Navalencia	2a-6	12,800	1,920	12,200	x			x	x		-	-	-	-	-	-	12,160	-	-	-	1,600	480	2,080			x	
Riverdale ^{3/}	2b-1	-	12,000	-	x			x	x		-	-	-	-	-	30.0	-	-	-	-	1,640	1,075	2,715			x	
Laguna ^{2/}	2b-2	-	10,000	500	x			x	x		-	-	-	-	-	30.0	-	-	-	-	3,340	2,090	5,430			x	
Sierra	2b-3	5,120	-	-	x			x	x		1	120	600	8.3	-	-	-	-	-	-	1,370	506	1,875			x	
H. Navelencia	2b-4	6,880	-	4,320			x		x		3	100	560	-	-	-	4,320	-	-	-	1,180	266	1,450			x	
Lemoore	2b-5	2,000	-	23,000	<u>1/</u>	x	x		x		-	-	-	-	-	-	23,000	-	-	-	5,660	3,720	9,380			x	

^{1/} Water Quality Problem Exists

^{2/} Data From P.I.

^{3/} Work Plan or Other Report

^{4/} Water Spreading

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

TULARE BASIN SUBREGION

1-1 Buttonwillow - A work plan has been approved and the authorization for construction is pending. This is an agricultural water management project only. There is no flood protection planned. The project consists mostly of irrigation systems reorganization with canal work. No significant change in land use is expected.

1-2 Tehachapi - A preliminary investigation is in progress. The project will furnish protection for agricultural and urban areas. Flood water will be diverted to water spreading grounds where it will percolate into the ground and help stabilize the underground water table. There will be no significant change in land use.

1-3 Caliente Creek - No application is on file. The project will furnish protection for agricultural lands and some urban areas further down stream. The project could furnish irrigation water to areas in the San Joaquin Valley near Arvin. No significant change in land use is foreseen.

1-4 Basin Creek - No application is on file. The project would furnish protection to agricultural lands in the Arvin and Lamont areas. Structures would provide for regulation of flows into spreading basins for underground water recharge. No significant change in land use would result.

1-5 Lower Caliente Creek - No application is on file. The project would furnish protection to agricultural lands and provide water spreading structures to control regulated flows from upstream watersheds. There would be no significant change in land use.

1-6 Poso Creek - There is no application on file. The project would prevent flooding of "prime" agricultural lands below highway "99". Water for irrigation would also be furnished by the project. No significant change in land use is expected.

2-1 Pasajero Creek - No application is on file. The project would furnish protection to agricultural lands that could be developed for intensive cropping. The City of Huron would also be protected from flood damage. The land use would be more intensive, that is, more irrigated crops and higher income.

2-2 Los Gatos Creek - There is no application on file. The project would furnish irrigation water to an area that has water of poor quality. Flood protection would be that amount resulting from the storage of irrigation water. Land use would be more intensive.

2-3 Warthan Creek - There is no application on file. The project would furnish protection from the flooding of agricultural areas, urban areas, and facilities. It would also furnish irrigation water to an area where both water quality and quantity is a problem. The land use would change from row crops to orchards and field crops. The Fresno County Natural Resources Committee has done a report on the area.

2-4 Jacalitos Creek - There is no application on file. The project would protect agricultural areas that could be developed for a more intensive agricultural program. Urban areas near the City of Huron would be protected. The land use would change from field crops to orchard.

2-4 Jacalitos Creek (Contd.) - The Fresno County Natural Resources Committee has done a report on the area.

2-5 Zapato Creek - No application is on file. The project would furnish protection to agricultural and urban areas, and state and county highways and bridges. A change in land use from field crops to orchards is expected. The Fresno County Natural Resources Committee has done a report on the area.

2a-1 New London Project - No application is on file. This project is for agricultural water management only. The project would reorganize four irrigation systems for increased irrigation efficiency. No significant change in land use would ensue.

2a-2 Stone Corral - A work plan is undergoing review. The project would furnish flood protection to agricultural lands. Flood control structures would be used as outlets for drainage laterals to lower the water table. There would be no significant change in land use.

2a-3 Ivanhoe - No application is on file. The project would prevent the flooding of valuable citrus orchards and other crop land. Subsurface drainage would be a part of this project. No significant change in land use would follow, but yields would be increased.

2a-4 Avenue "A" Project - There is no application on file. The project would reduce flooding and provide subsurface drainage to citrus orchards. No change in land use is expected.

2a-5 Terra Bella - A preliminary investigation has been requested. The project would provide for the removal of surface water in citrus orchards. There would be no change in land use.

2a-6 South Navelencia - No application is on file. The project would provide surface and subsurface drainage to citrus orchards and cropland. No change in land use will follow.

2b-1 Riverdale Water Management Project - A preliminary investigation has been requested and made for the district. Preliminary investigation results are promising; the project would provide for rehabilitation of irrigation canals and laterals. No change in land use would result.

2b-2 Laguna Water Management Project - This project is now included in the Riverdale Project (2b-1).

2b-3 Sierra Interstream Group - There is no application on file. The project would provide flood protection to agricultural lands. No change in land use is expected.

2b-4 North Navelencia - No application is on file. The project would provide flood protection and surface and subsurface drainage to citrus orchards. The land use change would be from idle land to citrus orchards.

2b-5 Lemoore Water Management Project - A preliminary investigation and report by local officials has been made. The project would provide for removal of drainage water and a lowering of the water table; there would be no change in land use other than that yields would be increased.

AREA
3
AREA
5



Project No	Name	Area
1-1	Button Willow	75,423 Ac.
1-2	Tehachapi	32,420
1-3	Caliente Creek	184,320
1-4	Reain Creek	80,640
1-5	Lower Caliente Creek	115,200
1-6	Paso Creek	206,720
2-1	Pasajera Creek	56,280
2-2	Las Gatas Creek	87,680
2-3	Warthan Creek	91,904
2-4	Jacalitos Creek	49,198
2-5	Zapata Creek	70,176
2a-1	New Landon	17,920
2a-2	Stone Carrol	10,500
2a-3	Ivanhoe	13,440
2a-4	Avenue "A"	25,450
2a-5	Terra Bella	36,040
2a-6	South Navalencia	30,650
2b-1	Riverdale	14,896
2b-2	Laguna	34,375
2b-3	Sierra	27,521
2b-4	North Navalencia	9,250
2b-5	Lemaare	53,000 Ac.

SCALE IN MILES
0 10 20 30
SCALE 1:267,200

/// POTENTIAL P.L. 566 PROJECTS
— AREA BOUNDARY

TULARE BASIN SUB-REGION

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Drawn by	Checked by
Drawn	Checked
Traced	Traced
Checked	Checked

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

SOUTH LAHONTAN SUBREGION

WATERSHED NAME & NO.		PROBLEMS									P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain	Irrig	Drain- age	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams	Sedi- ment Stor.	Flood Stor.	Control Channel	Irrigation		Drain- age Mains	M&I Storage	Rec. Storage	F&W Storage	PL 566 Cost	Local Cost	Total Cost	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Yes	No	Yes	No	Yes	No					Stor.	Canals										
Bishop Cr	5a-1	13,440	10,880	10,000		x	x			x	-	-	-	-	-	20	10,880	-	-	-	2,930	1,930	4,860			x
Mammoth Cr	5a-2	25	5,000	1,500	<u>1</u> / x		x			x	4	-	-	-	20,400	-	-	-	400	-	2,270	1,650	3,920		x	
N. Edwards	16-1	3,000	-	-	<u>1</u> / x		x			x	1	3,740	12,000	-	-	-	-	-	-	-	2,210	162	2,370			x
Portal Ridge	16-3	11,600	35,000	-		x	x			x	-	-	-	15.5	-	-	-	-	-	-	9,130	95	9,220		x	
Big Rock Cr	16-4	1,200	11,790	-	<u>1</u> / x	x	x			x	5	1,500	12,000	-	1,030	-	-	-	800	-	5,630	1,030	6,660	x		
Little Rock Cr	16-5	1,200	15,000	-	<u>1</u> / x		x			x	4	2,600	16,910	-	2,145	-	-	500	1,200	400	6,350	943	7,290	x		
Anaverde Cr	16-6	2,900	2,580	-		x		x		x	-	-	-	12.5	-	-	-	-	-	-	4,230	265	4,500	x		

1/ Water Quality Problem Exists

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

SOUTH LAHONTAN SUBREGION

5a-1 Bishop Creek - There is no application on file. The project is needed to provide drainage on agricultural lands. Urban areas at present have a sewage problem because of poor drainage. Irrigation systems are needed for the proper distribution of irrigation water. No change in land use is expected, but yields would increase.

5a-2 Mammoth Creek - There is no application on file. No flood protection is needed. The area needs irrigation water for hay and pasture land. The "Mammoth Water Yield Improvement Plan" (Inyo National Forest) considers some of the watershed problems.

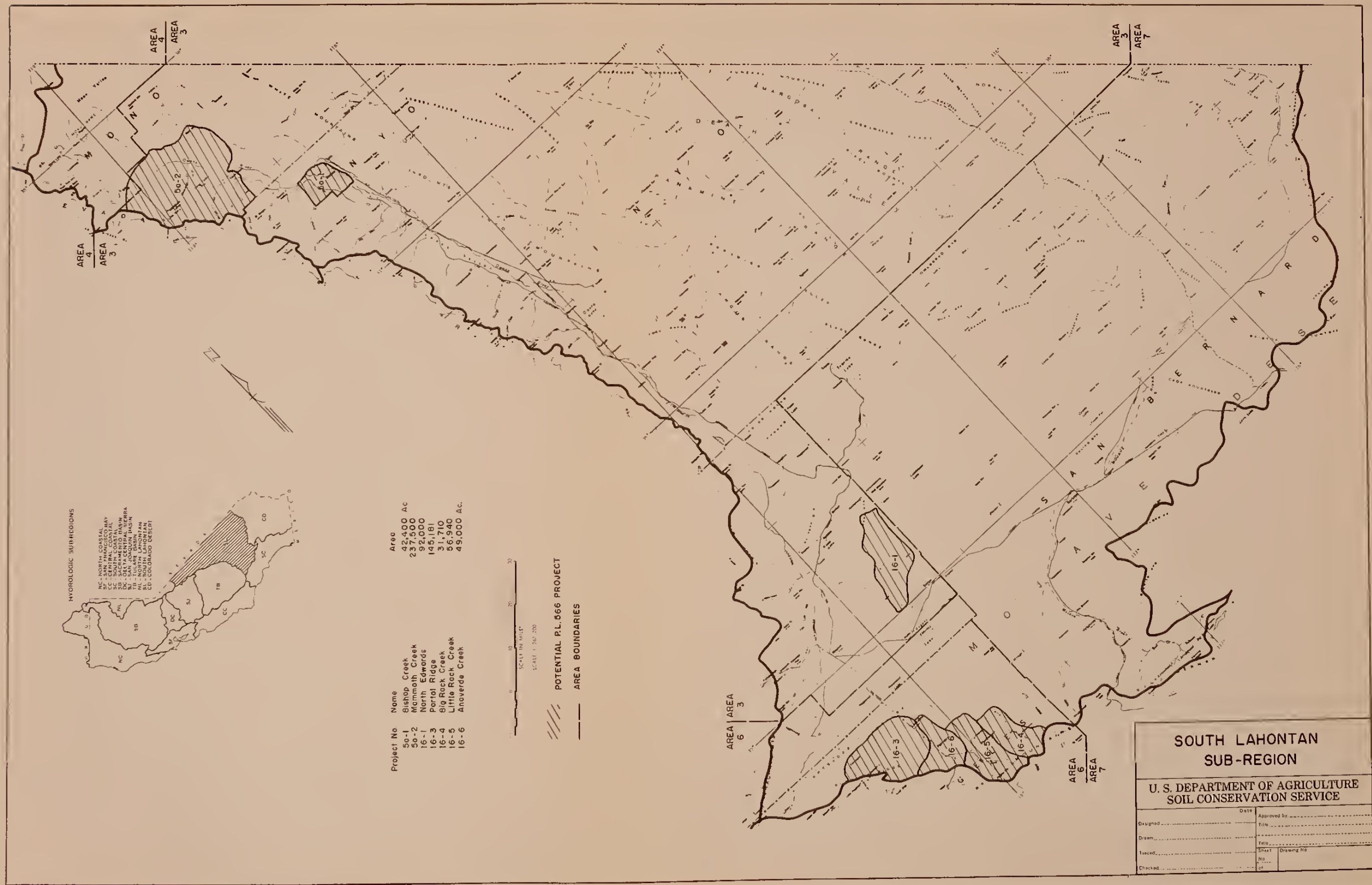
16-1 North Edwards - No application is on file. The project would provide flood protection to the urban area, and prevent washouts on the highway and railroad. The area has 1,500 acres of cropland; there would be no change in present land use.

16-3 Portal Ridge - The area was approved for planning by the State Soil Conservation Commission in May 1961; and the SCS Administrator in November 1961. A work plan draft has been informally suspended. The project would protect agricultural lands and urban areas from damage by sediment and flooding. 10,000 acres could change to alfalfa, and irrigated pasture could increase by 3,000 acres with a project. Much of the area will be urbanized in the near future.

16-4 Big Rock Creek - A preliminary investigation is in progress. The project would prevent flooding and sediment damage to agricultural lands, a highway and stream channels. About 3,000 acres could change to alfalfa production, and increased yields from the remaining flood prone area could be expected.

16-5 Little Rock Creek - A preliminary investigation has been requested. The project would provide flood and sediment protection for agricultural lands and local facilities. More irrigation water is also needed at present. There would be a change in land use of 2,000 acres to alfalfa and some orchards would be established.

16-6 Anaverde Creek - There is no application on file. The project would provide flood protection to agricultural lands and urban areas. At present, the floodwater flows down the main street of the City of Palmdale. Floods have caused heavy road damage in the past. No change in land use is anticipated.



Project No	Name	Area
50-1	Bishop Creek	42,400 Ac
50-2	Mammoth Creek	237,500
16-1	North Edwards	92,000
16-3	Portol Ridge	145,181
16-4	Big Rock Creek	31,710
16-5	Little Rock Creek	56,940
16-6	Anaverde Creek	49,000 Ac.

SOUTH LAHONTAN SUB-REGION			
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE			
Designed _____	Date _____	Approved by _____	
Drawn _____		Title _____	
Issued _____		Text _____	
Checked _____		Sheet _____	Drawing No _____
		of _____	

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

CENTRAL COASTAL SUBREGION

WATERSHED NAME & NO.		PROBLEMS								P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY			
		Flood Plain	Irrig	Drain- age	M&I		Rec.		Fish & Wild- life		Stor. Dams	Sedi- ment Stor.	Flood Stor.	Control Channel	Irrigation		Drain- age Mains	M&I Storage	Rec. Storage	F&W Storage	PL 566 Cost	Local Cost	Total Cost	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Water		Water		Yes No						Stor.	Canals										
					Yes	No	Yes	No	Yes	No																
Soquel Cr	Od-4	400	450	-	x		x		x	3	890	7,350	-	2,400	2.0	-	-	5,100	-	3,890	1,230	5,110			x	
Scott Cr	Od-5	300	3,500	200	x		x		x	1	-	-	-	16,000	6.0	-	6,020	2,000	-	2,220	2,100	4,320			x	
Carmel R	Of-1	800	-	-	x ^{1/}		x		x	8	3,100	28,800	-	-	-	-	-	5,100	-	4,740	1,440	6,180		x		
Los Alamos Cr	Og-1	375	450	-		x		x		x	2	90	810	-	750	4.0 ^{4/}	-	-	-	-	657	80	737		x	
Carpenteria- El Estero ^{2/}	Oh-4a	1,000	-	-	1/		x	x		x	1	65	-	6.7	-	-	-	-	-	3,360	315	3,670			x	
Santa Maria R. ^{2/}	7-3	565	300	-		x		x		x	5	160	111	-	-	-	-	-	-	323	27	350			x	
Eastside Canal ^{2/}	8-1	2,100	31,000	-	1/		x	x		x	-	-	-	-	48,000	54.0	-	-	-	9,275	6,080	15,350			x	
San Lorenzo Cr	8-2	615	-	-	1/		x	x		x	1	6,600	6,500	-	10,400	-	-	-	1,500	-	1,290	698	1,990			x
Bolsa Project	9-1	3,000	-	6,000		x	x		x	3	645	2,900	-	5,700	-	6,000	-	-	-	5,100	2,370	7,475			x	
Lone Tree Project	9-2	800	1,500	-	1/		x	x		x	1	135	750	3.9	-	-	-	-	-	409	49	459			x	
Enterprise- Hollister	9-3	650	675	-		x	x		x	-	-	-	0.8	-	-	-	-	-	-	366	5	371		x		
Los Vibros Project	9-4	1,300	2,100	-	1/		x	x		x	2	235	1,310	6.4	-	-	-	-	-	563	124	687		x		
Uvas Carnadero Project	9-5	3,000	2,500	900	x ^{1/}		x		x	4	540	14,100	2.1	7,100	10.0	-	-	-	-	8,080	4,160	12,200		x		
Tynan Lake	9-6	2,250	-	1,000		x	x		x	2	53	680	0.8	680	-	-	-	-	-	981	178	1,160		x		
Upper Llagas ^{3/}	9-8	2,700	-	-		x		x		x	1	110	3,570	15.0	7,520	-	-	-	-	3,220	2,150	5,360			x	
Lower Llagas ^{3/}	9-9	6,700	-	-		x		x		x	-	-	-	17.2	-	-	-	-	-	4,650	2,265	6,915			x	
Alisal Gabilan ^{3/}	Oe-1	8,000	7,700	2,000	1/		x	x		x	3	586	3,559	38.5	15,500	-	-	-	2,505	-	17,800	11,400	29,200			x
Hazel Dell	9-7	1,100	-	200	x ^{1/}		x		x	1	60	1,640	-	-	-	-	-	-	-	250	80	330			x	

^{1/} Water Quality Problem Exists

^{2/} P.I. on Other Report

^{3/} Work Plan

^{4/} Pipeline

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

CENTRAL COASTAL SUBREGION

Od-4 Soquel Creek - There is no application on file. The Corps of Engineers has developed a feasible plan for flood control, M&I, irrigation and recreation. There would be no significant change in land use. Protection would allow a higher intensity of use, such as nurseries and hot houses.

Od-5 Scott Creek - There is no application on file. The project would provide water for M&I, irrigation and recreation; any flood protection would be secondary to these benefits. There would be no change in land use. Production would increase because of the adequate irrigation water supply.

Of-1 Carmel River - An application was received August 2, 1956; it is now inactive. The Corps of Engineers has authorization for project planning. The project would prevent flooding of residential and agricultural areas. The change in land use if any would probably be to urban.

Og-1 Los Alamos - There was a field review April 17, 1957; the reconnaissance showed infeasibility. On May 27, 1957, it was approved by SDSC on June 30, 1963, the preliminary investigation was terminated. The project would furnish flood protection and some badly needed irrigation water. No significant change in land use is foreseen.

Oh-4a Carpinteria-El Estero - Planning was authorized on August 17, 1964. The project would furnish flood protection for citrus and avocado orchards, and also urban areas. Any change in land use would probably be to urban, or to flowers and nurseries.

7-3 Santa Maria River (Diaz) - Planning was authorized August 26, 1958, and terminated March 9, 1962. The area is very erosive. Control of sediment is needed to improve production on agricultural lands immediately below the project. Control would enable the reclamation of the badly eroded lands. There would be no significant change in land use except 400 acres of increased vegetable production. The production would increase. There has been a change in farming patterns and ownership which may warrant reconsideration at a future date.

8-1 Eastside Canal - A preliminary investigation is in progress. The project is primarily designed for agricultural water management. Any flood control would be incidental to the P.L. 566 work. There will be some change in land use from dryland to irrigated.

8-2 San Lorenzo Creek - A preliminary investigation has been requested. The project would prevent the flooding of agricultural lands, urban areas, and recreation facilities. No significant change in land use would ensue.

9-1 Bolsa Drainage Project - The project would reduce the flooding on agricultural lands, and provide irrigation water and drainage on lands too wet for productive farming. There would be more intensive use of agricultural lands, resulting in higher returns

9-2 Lone Tree Project - No application is on file. The project would reduce flooding of agricultural lands below the watershed. No significant change in land use is foreseen, except for more orchard planting and permanent pasture.

9-3 Enterprize-Hollister - A preliminary investigation is in progress.

The project would reduce flooding on agricultural lands and urban areas, and damage and destruction to crops. The project would reduce the spread of oak root fungus.

9-4 Los Vibros Project - There is no application on file. The project would prevent flooding of agricultural lands (orchard), with reduction of streambank erosion. There would be no significant change in land use, but yields will be more stable, increasing net returns to operators.

9-5 Uvas-Carnaderos - There is no application on file. The project would prevent flooding and any prolonged inundation of agricultural lands. The annual damage to public facilities would be reduced. There would be no significant change in land use, but the farm economy would be more stable.

9-6 Tynan Lake - A preliminary investigation was completed June 25, 1968, and planning authorization has been requested. The project would prevent flooding of lowlands and prevent damage to crops. It would provide for regulating flood flows through tide gates. No significant change in land use is foreseen.

9-7 Hazel Dell - The project is part of the Green Valley Community Watershed Plan, Santa Cruz County, California, August 1953 by SCS. The project would provide flood protection to agricultural and urban lands. No significant change in land use would ensue; the project would permit planting of two crops rather than one.

Oe-1 Alisal-Gabilan - The work plan is completed and undergoing policy review. The project would prevent flooding of agricultural lands, and provide surface drainage and water for recreation. There would be no significant change in land use.

9-8 Upper Llagas - The work plan is completed, and authorization for construction has been given.

9-9 Lower Llagas - The work plan is completed, and the authorization for construction has been given.

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

SOUTH COASTAL SUBREGION

WATERSHED NAME & NO.		PROBLEMS									P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain	Irrig	Drain- age	M&I		Rec.		Fish & Wild- life		Stor. Dams	Sedi- ment Stor.	Flood Stor.	Control Channel	Irrigation		Drain- age Mains	M&I Storage	Rec. Storage	F&W Storage	PL 566 Cost	Local Cost	Total Cost	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Water	Water	Yes	No	Yes	No					Stor.	Canals										
					Ac.	Ac.	Ac.	Yes	No	Yes					No	No.										
Harbison Canyon	01-1	55	350	-	x			x		x	3	330	590	2.0	-	-	-	-	-	-	1,700	250	1,950	x		
Forester Cr	01-2	3,100	1,750	-		x	x			x	2	270	490	6.5	-	-	-	-	60	-	7,700	1,400	9,100			x
Los Coches Cr	01-3	410	660	-		x	x			x	3	1,130	2,050	2.0	-	-	-	-	180	-	2,100	1,100	3,200		x	
Alpine Cr	01-4	80	-	-		x	x			x	2	120	400	1.0	-	-	-	-	30	-	650	150	800	x		
Poway Canyon	01-5	250	-	-		x	x			x	3	1,020	2,200	11.3	-	-	-	-	600	-	9,200	1,100	10,300		x	
Ramona Area	01-6	370	9,100	-	x		x			x	2	1,420	2,620	-	-	-	-	-	-	-	3,000	200	3,200	x		
San Marcos Cr	01-7	500	-	-		x	x			x	3	350	960	8.8	-	-	-	-	-	-	3,500	500	4,000		x	2/
Moosa Canyon	01-8	2,600	930	-		x	x			x	3	2,060	5,000	.9	4,000	-	-	-	-	-	8,100	2,400	10,500			x
Potrero Cr	1-1	110	1,190	-		x	x			x	3	850	1,940	-	-	-	-	-	-	-	2,200	600	2,800	x		
Lake Moreno	1-2	500	4,050	-	x		x			x	5	6,000	3,800	-	-	-	-	-	-	-	10,900	1,300	12,200	x		
Rainbow Valley	2-1	112	233	770	x			x		x	1	120	330	1.4	20,000	1/-	770	-	-	-	6,500	5,200	11,700		x	
San Timoteo	3-1	4,700	12,300	-		x	x			x	17	8,690	13,220	1.0	4,680	-	-	-	-	-	20,800	3,200	24,000		x	
Chino Basin	3-2	17,000	-	-		x		x		x	0	-	-	26.0	-	-	-	-	-	-	1,800	100	1,900			x
Hagador Canyon	3-3	2,600	1,000	-	x			x		x	1	975	1,270	3.5	-	-	-	-	-	-	3,800	450	4,250		x	
Rattlesnake Cr	3-4	110	1,500	100	x			x		x	1	220	400	1.0	-	-	-	-	180	-	1,300	200	1,500	x		
Salt Cr	3a-1	2,300	15,000	-		x	x			x	8	2,470	5,060	9.5	490	-	-	-	800	-	6,600	2,000	8,600		x	
Massacre Canyon	3a-2	5,685	-	300		x	x			x	1	2,100	3,700	1.0	-	-	-	-	-	-	14,600	250	14,850	x		
Bedford Cr	3a-3	510	500	-	x			x		x	1	650	750	.5	-	-	-	-	400	-	3,100	350	3,450	x		
Triunfo Cr	0i-1a	2,700	-	-		x	x			x	9	960	3,085	3.5	-	-	-	-	220	200	4,400	600	5,000		x	
San Gabriel West	0j-1	5,620	-	-		x		x		x	3(95)	66	310	3.1	-	-	-	-	-	-	3,300	450	3,750			x
San Gabriel East	0j-2	4,400	-	-		x		x		x	5(88)	3,320	3,780	-	-	-	-	-	-	-	14,600	2,400	17,000		x	
San Gabriel Cent.	0j-3	600	-	-		x		x		x	7(63)	3,190	3,120	-	-	-	-	-	510	-	10,700	850	11,550	x		
Sand Canyon	5-1	450	200	-		x		x		x	3	1,880	2,430	2.3	250	-	-	-	-	-	3,600	450	4,050	x		

1/ Stored within the watershed for use outside of watershed--
could be used for M&I if needed as source is Colorado River.

2/ USBR has studied this area and developed some
plans for irrigation.

3/ Stabilization Structures

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

SOUTH COASTAL SUBREGION

WATERSHED NAME & NO.		PROBLEMS									P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain Ac.	Irrig Ac.	Drain- age Ac.	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams No.	Sedi- ment Stor. Ac-Ft	Flood Stor. Ac-Ft	Control Channel Miles	Irrigation		Drain- age Mains Ac.	M&I Storage Ac-Ft	Rec. Storage Ac-Ft	F&W Storage Ac-Ft	PL 566 Cost (\$1,000)	Local Cost (\$1,000)	Total Cost (\$1,000)	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Yes	No	Yes	No	Yes	No					Stor.	Canals										
Aliso Cr	Ok-1	1,050	-	-		x	x		x	3	1,100	1,150	-	210	-	-	-	740	-	1,600	1,200	2,800		x		
Mainstreet Canyon	3-5	1,730	630	-		x			x	1	200	-	3.3	-	-	-	-	-	-	1,300	400	1,700			x	
North Fork- San Jacinto	3a-4	24,000	24,000	-		x	x		x	3	6,200	11,700	-	4,300	-	-	-	-	-	12,500	1,630	14,100			x	

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

SOUTH COASTAL SUBREGION

Oi-1a Triunfo Creek - There is no application on record. The project would provide protection to dry-farm lands and to urban areas, and some recreation would be provided. There would be no significant change in land use.

Oj-1 San Gabriel West - A work plan was developed for this area in 1961. The project would reduce flooding and erosion in citrus orchards. The area is rapidly becoming urban; the structural measures would primarily be land treatment practices in National Forest.

Oj-2 San Gabriel East - There is no application on file. The project would reduce flooding and erosion in citrus orchards. The area is rapidly becoming urban; the structural measures would primarily be land treatment practices in National Forest.

Oj-3 San Gabriel Central - There is no application on file. The project would reduce flooding and erosion in citrus orchards. The area is rapidly becoming urban; the structural measures would primarily be land treatment practices in National Forest.

Ok-1 Aliso Creek - No application is on file. The project would provide protection to agricultural and urban lands. Increased urbanization is expected in the near future. 300 acres of pasture could be converted to row crops.

01-1 Harbison Canyon - Food protection would be provided for the urban area and damage to roads and bridges will be prevented. There will be 60 acres of improved land use. To date no planning is in progress.

01-2 Forester Creek - No SCS planning to date; however, a consulting engineering firm did a plan several years ago, and the City of El Cajon is working toward implementing it. The project would provide protection to urban areas, highways, and streets. There will be no change in land use. Some recreation potential may accrue.

01-3 Los Coches Creek - There has been no planning to date. The project would provide protection to urban areas, streets, and highways. Some recreation might accrue.

01-4 Alpine Creek - There has been no planning to date. The project would provide protection to urban areas, streets, and highways. Some recreation would be provided. No significant change in land use is expected.

01-5 Poway Canyon - The area is covered by Corps of Engineers and County reports. The project would provide protection to urban land and industrial areas; highway and access roads would remain open during storms. Recreation would be provided in the plan. Land would also be developed for industry and home sites.

01-6 Ramona Area - No planning has begun to date. The project would provide protection to urban and industrial areas. No significant change in land use is foreseen.

01-7 San Marcos Creek - There has been no planning to date. The project would provide protection to urban and industrial areas; also some low producing agricultural land could be planted to orchard.

01-8 Moosa Canyon - No planning has begun to date. The U.S. Bureau of Reclamation has plans to build a dam on Moosa Creek for irrigation. The project would provide protection to residential areas, recreation areas, and agricultural lands; orchards would be planted on cropland.

1-1 Potrero Creek - There has been no planning to date. The project would protect mostly agricultural lands, but little or no change in land use would take place should the project be constructed.

1-2 Lake Moreno - A field review was submitted March 13, 1956. There is no suitable action agency to take over the O&M costs. The application was approved by the SDSC on May 8, 1956. It is inactive at present. The project would prevent the lake filling with silt. Brushland could be converted to orchards and grassland could be planted to irrigated pasture.

2-1 Rainbow Valley Watershed - Portions of Rainbow Valley are subject to frequent flooding due to the poor channel conditions near the community of Rainbow. The present irrigated cropland has depended on wells for an adequate supply. Some well contamination from numerous cesspools has occurred and the condition is expected to intensify if drainage is not provided in the future. Most of the valley could produce high value crops such as citrus and nursery stock if drainage is provided. Colorado River water is available at this time, but has a relatively high leaching

2-1 Rainbow Valley Watershed (Contd.) - requirement for citrus and nursery crops. The high water table makes leaching impractical without drainage.

A damsite with a capacity of approximately 20,000 acre feet exists in the watershed. Colorado River water could be stored in periods of low demand for irrigation needs outside the watershed. Also, this site could be used to provide emergency municipal supply to the Colorado aqueduct system if necessary. Further study would indicate the best use of this site.

3-1 San Timoteo - There has been no detailed planning to date. The application is now inactive. Project would provide protection to railroad and highways. The flooding of lands along the streambed would be prevented. There would be no significant change in land use, though some potential for urban development would arise.

3-2 Chino Basin - Planning was authorized on November 17, 1955, and terminated on May 15, 1959. The SCD has released the downstream part of the application but held the upper watershed area in the application, in order to assist in getting the land treatment on the public and private lands in the mountains. The project as visualized at this time would prevent flooding of cropland and some urban areas in and near Chino. The erosion on agricultural land would be reduced; no change in land use patterns is expected.

3-3 Hagador Canyon - There is no application on record. The project would provide protection for farm land and orchards. Urban areas would be protected from sediment and debris and would continue to expand.

3-3 Hagador Canyon (Contd.) - Some recreation might be provided by the flood control structures. There would be no significant change in land use, outside of some increase in yields.

3-4 Rattlesnake Creek - A field review was made on December 20, 1963. The problem is flooding, and the flood plain is expected to be converted from agricultural to urban uses within 20 years. The project would prevent flooding of agricultural and urban areas; some recreation would be provided.

3-5 Mainstreet Canyon - A work plan has been completed for this project. The project would primarily provide flood protection for agricultural and urban areas. Improved channels for flood water would be the primary structural measure to be installed.

3a-1 Salt Creek - The local people have been aware of their watershed problems, particularly since 1958 when considerable flood damage occurred in the watershed. A field review of the watershed was conducted in 1954 and a reconnaissance survey was conducted in 1955.

The watershed is subject to high intensity rain storms which produce high peak flows. Some of the recent storms have caused severe damage to newly developed urban areas. One of the many land use changes in the past few years has been the development of Sun City on land previously used for range.

Some of the agricultural land is being more intensively used with several areas now producing commercial roses. Limited acreages of roses are

3a-1 Salt Creek (Contd.) - subject to flooding. It is estimated that certain varieties have a gross value up to \$250,000/acre. Wells in this area are low producing. The groundwater is highly saline and contains sufficient quantities of boron to adversely effect crops such as potatoes. Colorado River water is available in the area, however the supply is limited and costly.

3a-2 Massacre Canyon - No application is on record. The project would prevent flooding and erosion of agricultural lands, and also protect a golf course. Some land could be converted to more intensive use such as row crops, and some recreation would be available.

3a-3 Bedford Creek - There is no application on record. The project would prevent flooding of agricultural lands and damage to drainage ways. Some recreation would be provided by the project. There would be no significant change in land use, except, however, some urban area expansion will take place.

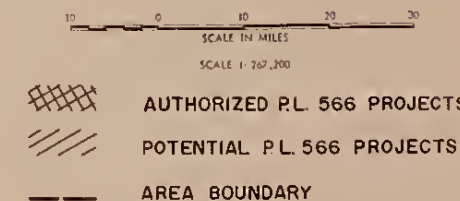
3a-4 North Fork San Jacinto River - An application was forwarded on July 29, 1968. A project would prevent flooding of agricultural lands, and provide some irrigation water and water for recreation. Controlled releases would be used to recharge the groundwater. No significant change in land use is expected.

5-1 Sand Canyon - There is no application on file. The project would reduce deposition on farm land, and also reduce bank erosion; some recreation would be provided. Flooding has reduced channel capacity

5-1 Sand Canyon (Contd.) - throughout the valley resulting in a high water table in many areas. Greatly reduced yields will result if not corrected. There would be no significant change in land use.



Project No.	Name	Area
1-1	Potrero Creek	10,880 Ac.
1-2	Lake Moreno	74,000
2-1	Rainbow Valley	4,382
3-1	Son Timoleo	80,000
3-2	Chino Basin	23,500
3-3	Hogador Canyon	12,000
3-4	Rattlesnake Creek	5,900
3-5	Mainstreet Canyon	13,000
5-1	Sond Canyon	3,840
30-1	Salt Creek	99,520
30-2	Massacre Canyon	26,995
30-3	Bedford Creek	5,000
30-4	North Fork San Jacinto River	163,000
01-10	Triunfo Creek	27,760
0j-1	Son Gabriel West	28,312
0j-2	Son Gabriel East	22,000
0j-3	Son Gabriel Central	5,500
0k-1	Aliso Creek	22,175
01-1	Horbison Canyon	6,300
01-2	Forester Creek	15,300
01-3	Los Coches Creek	10,100
01-4	Alpine Creek	2,330
01-5	Powoy Canyon	22,000
01-6	Romano Area	36,480
01-7	San Morcos Creek	17,715
01-8	Mooso Canyon	25,600
01-2(o)-3	Revolon	17,700
0i-2(a)-4	Beardsley	20,500
01-9	Bueno Viato	8,970
01-10	Escondido Creek	39,900
0i-2(o)-5	Colleguas Creek	177,480 Ac.



SOUTH COASTAL SUB-REGION

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Drawn by	Checked by
Drawn	Checked
Drawn	Checked
Drawn	Checked

CONSERVATION NEEDS INVENTORY

WATERSHED PHASE

COLORADO DESERT SUBREGION

WATERSHED NAME & NO.		PROBLEMS									P. L. 566 STRUCTURAL MEASURES										GENERAL COST *			FEASIBILITY		
		Flood Plain	Irrig	Drain- age	M&I Water		Rec. Water		Fish & Wild- life		Stor. Dams	Sedi- ment Stor.	Flood Stor.	Control Channel	Irrigation		Drain- age Mains	M&I Storage	Rec. Storage	F&W Storage	PL 566 Cost	Local Cost	Total Cost	Prob Not Feas.	Ques- tion- able	Feasi- ble
					Yes	No	Yes	No	Yes	No					Stor.	Canals										
Smith Cr	21-1	480	1,400	-	x ^{1/}		x		x		3	600	1,700	2.0	1,080	-	-	50	200	-	4,895	890	5,785	x		
San Gorgonio R.	21-2	500	300	-	x		x		x		3	2,870	9,400	7.4	900	-	-	-	760	-	9,850	691	10,500	x		
Coyote Cr	21-3	3,700	1,000	-		x	x		x		2	2,640	5,900	-	3,400	-	-	-	700	-	2,480	593	3,075			x
Hellhole Canyon	21-4	4,100	1,100	-		x	x			x	4	3,000	6,800	-	1,200	-	-	-	460	-	6,010	587	6,600			x
Yuma Indian Res.	24-1	-	-	3,820		x	x		x		5	620	1,240	-	-	-	3,820	-	-	-	3,080	663	3,740			x
Picacho Wash	24-2	850	8,450	7,500		x	x		x		5	1,450	3,100	-	-	70	7,500	-	-	-	5,070	1,690	6,760			x
Palo Verde Mt.	24-4	2,500	3,400	2,500		x	x		x		4	1,040	2,080	4.8	-	-	2,500	-	-	-	2,950	612	3,565		x	
McCoy Wash ^{2/}	24-5	10,000	-	-		x		x		x	1	3,140	1,860	-	-	-	-	-	-	-	965	86	1,050			x
Coyote Wash	25-2	700	-	5,000		x		x		x	2	3,520	7,100	8.6	-	-	-	-	-	-	9,010	231	9,240	x		
Mammoth Wash	25-4	5,000	-	30,000		x		x		x	2	3,380	6,800	9.7	-	-	-	-	-	-	8,950	715	9,660	x		

^{1/} Water Quality Problem

^{2/} P. I.

*Caution should be used when considering these costs as they are based upon the minimum of available data and represent only a very general estimate.

COLORADO DESERT SUBREGION

21-1 Smith Creek - Planning was authorized in September 1955 and terminated on December 17, 1958. The project would provide protection to cropland, urban areas and local facilities. More water for irrigation is needed to improve the local economy. With more water the land use would change to higher income crops.

21-2 San Gorgonio River - No application is on file. The project would furnish protection to agricultural areas that are mostly rangelands, and prevent flooding of urban areas and damage to local facilities. No significant change in land use would result.

21-3 Coyote Creek - There is no application on file. The project would confine flood waters to reservoirs and channels. Some flood water would be used to recharge underground water supplies. There would be no significant change in land use.

21-4 Hellhole Canyon Et Al. - No application is on file. The project would prevent flood and sediment damage to agricultural lands and local facilities. Much damage has occurred to county roads in the past. No change in land use is foreseen.

24-1 Yuma Indian Reservation - No application is on file. The project would provide protection to agricultural lands that are flooded during the rainy season. Subsurface drainage would be provided to lower the

24-1 Yuma Indian Reservation (Contd.) - water table on 3,820 acres. Land use would change to a wider variety of crops.

Note: This would probably not be a project unless included with 24-2.

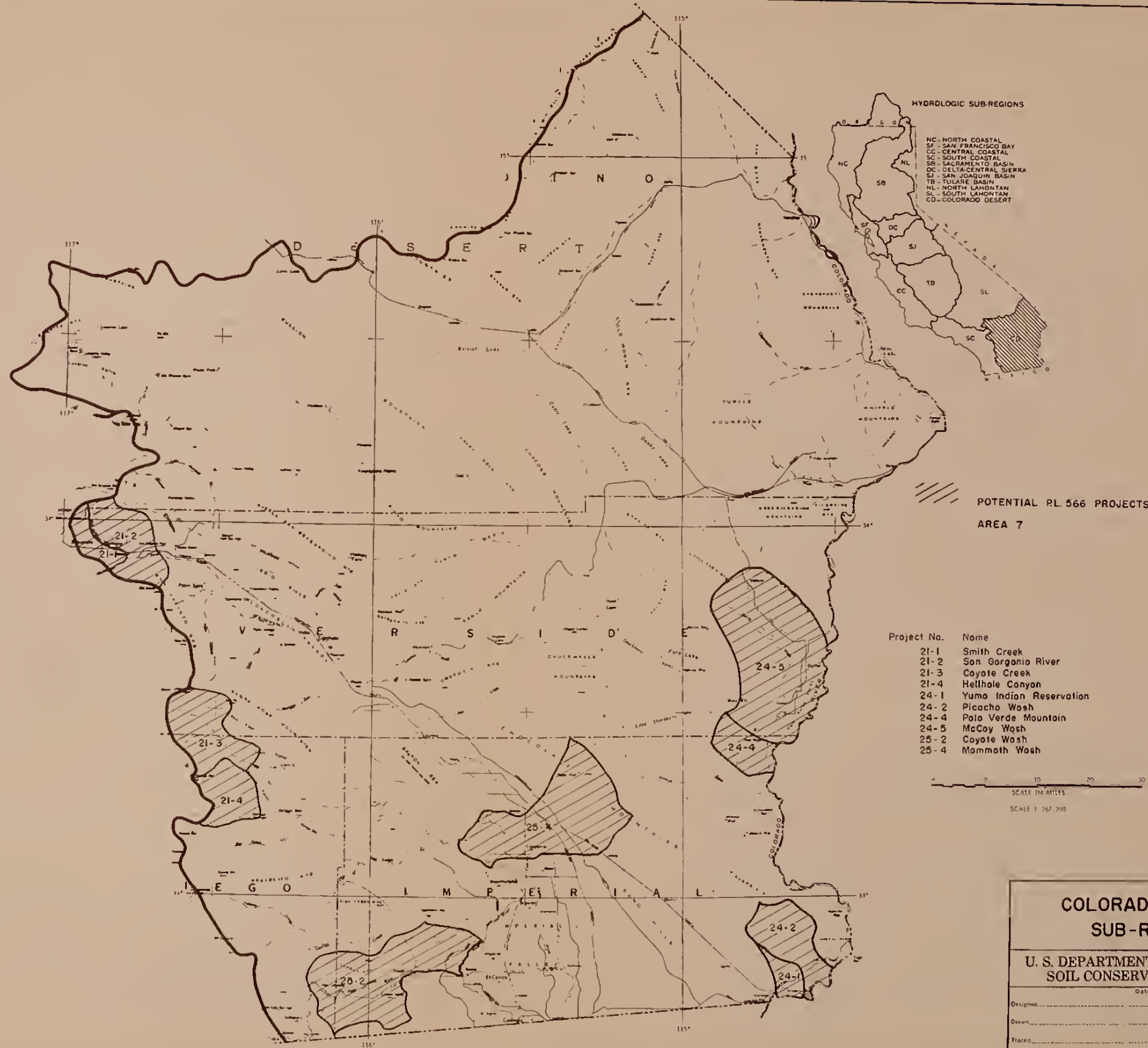
24-2 Picacho Wash - No application is on file. The project would prevent inundation by flood waters, and damage by silt to irrigation and drainage systems. Silt and debris on cropland is a problem that would be controlled. No change in land use would ensue.

24-4 Palo Verde Mountain - There is no application on file. The project would replace a flood levee built by local interests that provides about 5 year protection. There would be no change in land use.

24-5 McCoy Wash - An application was received October 1967. A preliminary investigation is underway. The project would protect flooding of agricultural and urban areas. There would be no change in land use.

25-2 Coyote Wash - There is no application on file. The project would protect agricultural lands from flooding. Irrigation and drainage systems would be protected from silt and debris. No change in land use would result.

25-4 Mammoth Wash - There is no application on file. The project would provide protection from flooding, silt and debris. Irrigation canals would be protected--in past years district canals have been broken when overtopped by flood waters. There would be no change in land use.



COLORADO DESERT SUB-REGION

U. S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE

Designed by _____	Date _____	Approved by _____
Drawn by _____		Title _____
Traced by _____		Title _____
Checked by _____		Sheet _____
		Drawing No. _____

